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IN MINDANAO

BY CHARLES T. BRUES

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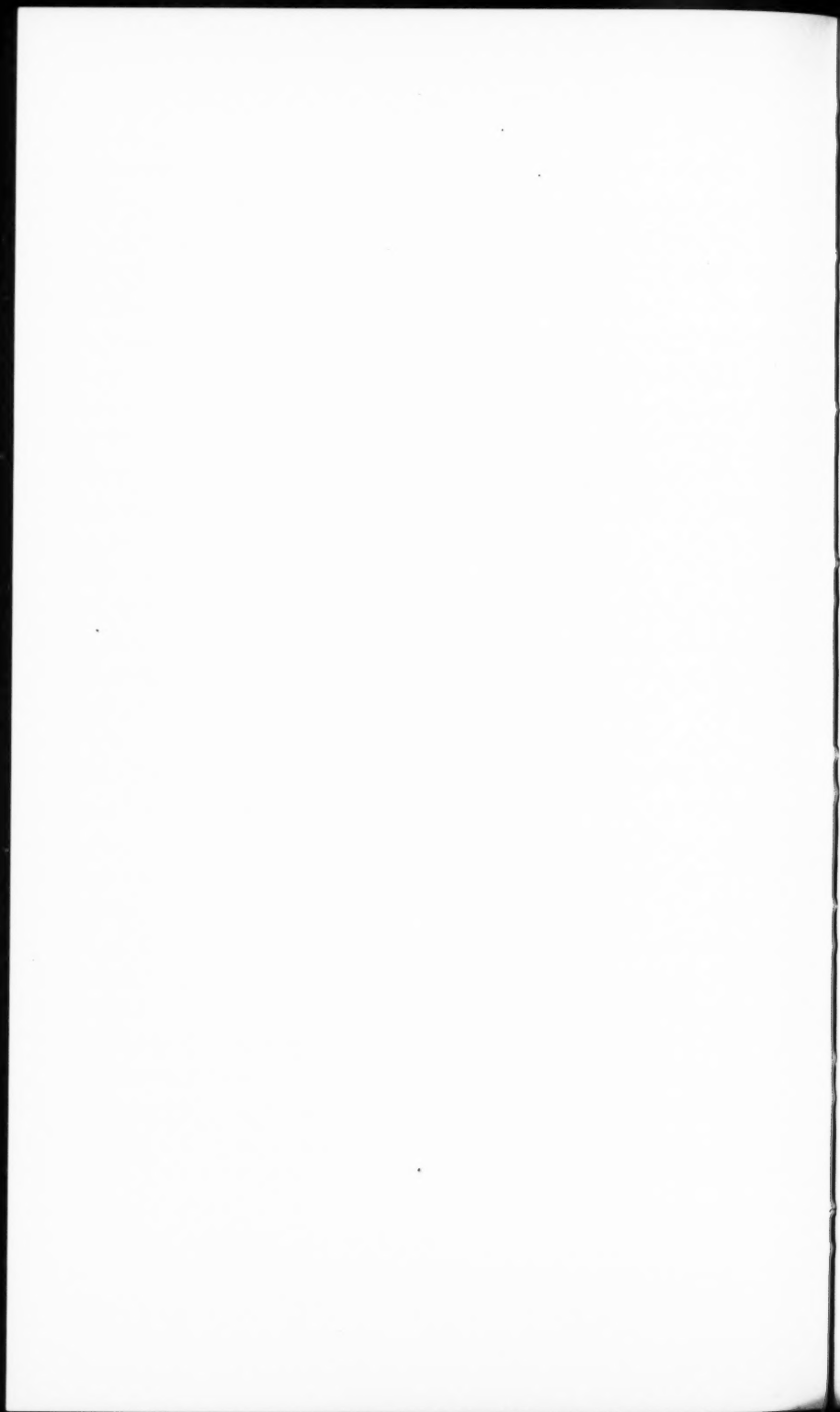


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By CHARLES T. BRUES

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The material on which the present paper is based was collected by Mr. C. F. Clagg who spent a number of months during 1930-31 in the Mount Apo region in southern Mindanao. Among the many Diptera which he obtained there is an extensive series of Phoridae, which has been acquired, together with much material in other families, by the Museum of Comparative Zoölogy.

Mr. Clagg made his collections at various localities in the province of Davao in southeastern Mindanao. Most of the species described in the present paper were collected on Mt. Apo, an active volcano. This mountain is the highest peak in the Philippines rising to an altitude of 9610 feet (2929 meters) according to the latest surveys.

Most of the collecting on Mt. Apo was done on the east and south-east slopes beginning the last part of August and continuing to the end of November 1930, at altitudes from 5,000 to 8,000 feet. A few specimens were taken at lower altitudes when trips down to the lowlands were necessary to replenish provisions.

As no members of the wild tribe of Bagobos who control the eastern slopes of the mountain live above 4,000 feet altitude, it was necessary to cut trails through the dense forest before any collecting could be done. Heavy rain every day for the first 28 days, above 4,000 feet, also made collecting of delicate specimens a problem. This superabundance of moisture and the dense vegetation may account to a certain extent, for the great richness of the fauna.

Mr. Clagg also collected some Phoridae at Lawa and Calian, two river valleys on the west coast of Davao Gulf, and in the Lalun Mts. at the headwaters of these two rivers, at an altitude of 5500 feet. Two different trips were made to the Lalun Mts., one during the first week of July 1930 and the second between Christmas 1930 and January 5, 1931. During the last week in January 1931, he ascended Mt. Mayo back of the town of Mati in the eastern peninsula of Davao and collected near the summit, between 4,000 and 5,000 feet.

The Phoridae of the Philippines have hitherto remained practically unknown, so that it is not surprising to find that practically all those secured by Mr. Clagg prove to be undescribed. Eight genera are represented in the present collection, but most of the species belong to

the large and widespread genus *Megaselia*. None of the genera are described as new, although one remarkably modified species which I have tentatively referred to *Johowia*, a monotypical South American genus, may possibly prove to deserve generic rank. Some of the species are closely similar to Palearctic ones. Of several generally tropicopolitan species of *Megaselia*, no specimens appear in Mr. Clagg's collections, but this is to be expected since the material came from a region as yet totally unspoiled by advancing civilization and commercial intercourse.

The figures which accompany the descriptions are from drawings made by Mrs. Martin O'Connor to whom I am indebted also for aid in preparing the manuscript for the printers.

The types of the new species are in the collections of the Museum of Comparative Zoology at Harvard University.

PARASPINIPHORA Malloch

Paraspiniphora apicalis sp. nov. (Fig. 1)

♂. Length 2.4 mm. Black, pleuræ, antennæ and posterior legs brownish; front legs and palpi yellowish; abdominal tergites narrowly pale margined; wings slightly infuscated, the heavy veins black. Front slightly wider than high, its bristles strong; four postantennal bristles; the lower pair very close together; upper pair well separated; lower transverse row of four bristles curved upward medially, the inner bristles nearly as far from one another as from the eye margin; upper row strongly convex above also. Antennæ large, as high as the eye width; usually dark brown, sometimes more honey-yellow. Palpi of moderate size, with very stout, but short bristles, considerably lighter in color than the antennæ; postocular cilia enlarged below; one long bristle on the cheek. Mesonotum shining, with sparse minute hairs and two pairs of dorsocentral bristles, the posterior ones farther apart and very close to the hind edge; scutellum with four strong bristles. Front legs yellow, their tibiæ with a strong dorsal bristle just before the middle; middle legs darker, more brownish, with a pair of bristles just before the basal third and a stronger anterior one at the apical third; posterior tibia with four bristles, a posterior dorsal one at the basal third, and another just before apex, a dorsal one just beyond the middle and an anterior ventral one at the middle, the last weaker than the others. Abdomen dull black, more shining at tip, tergites one to six narrowly margined behind with yellowish white; second and sixth elongated, each nearly twice as long as the third, the second with a tuft of rather short bristles at each side. Hypopygium

black, with a short pale lamella; curved forward under the tip of the abdomen as an arcuate, strongly bent process that bears conspicuous backwardly directed small bristles. Wings slightly but distinctly tinged with brown, the heavy veins black and the light ones dark; first section of costa twice as long as the second and third together, the costa ending a little beyond the middle of the wing, very thin at the base and distinctly arched beyond the tip of the first vein; its edge

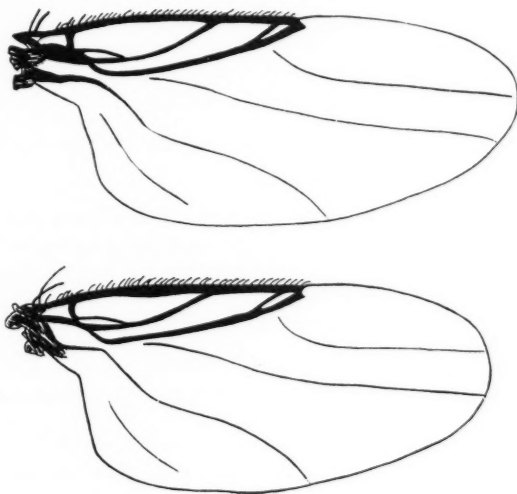


FIGURE 1. *Paraspiniophora apicalis* sp. nov. a, wing of male; b, wing of female.

with very short and delicate cilia; second vein very thin, almost parallel with the tip of the third so that the last section of the costa is very short; third vein with a single bristle at the base; fourth vein straight except at base; fifth parallel with the fourth beyond the middle; sixth widely divergent from the fifth; seventh gently curved. Halteres pale.

♀. Length 2.8-3.2 mm. The mesonotum is piceous or fuscous and the antennae orange yellow, no darker than the palpi. The abdomen lacks the pale margins almost entirely, except on the first segment. The apical portion, including apex of the fourth and all of the following segments, orange or yellow. Antennae not enlarged; seventh

abdominal tergite deeply incised medially. Tarsal claws, especially on the front legs, greatly enlarged, empodium ribbon-like. Costa much thickened between the anterior cross-vein and the tip of the first vein, slightly so thence to its tip.

Type male and eight other males and thirteen females from Baco, Mindoro, Philippines, October 30. One other female from Calapan, Mindoro.

This is the first species of the genus to be described from the Philippines. It is readily recognizable by the striking coloration of the abdomen in the female as well as by the noticeably swollen costa in that sex. The male is quite similar to *P. bergenstammi*, differing in coloration and in the form of the hypopygium.

DIPLONEURA Lioy

***Diploneura evanescens* sp. nov.**

♀. Length 4.2 mm. Black; the antennae piceous; palpi pale yellow; proboscis and front legs fuscous, the posterior legs almost black; wings hyaline, the costal margin infuscated beyond the costal vein; heavy and light veins piceous; halteres black. Front about as wide as high, the frontal bristles long; two postantennal bristles very close together; bristles of lower transverse row in a line that curves downward strongly at the middle, the median ones twice as far from one another as from the adjacent lateral one which is widely separated from the eye; middle row forming a straight transverse line, its bristles equidistant with the lateral ones near to the eye; upper edge of front forming a raised carina which curves slightly downwards at the sides so that the lateral bristles of the ocellar row arise above it; surface of front subshining. Post-ocular cilia strong; two moderate bristles on each cheek. Antennae small, piceous when seen from above, the third joint honey-yellow below; palpi rather broad in profile, with about six moderate sized apical bristles. Proboscis heavily chitinized, about as long as the head height. Mesonotum quite distinctly shining although clothed with rather dense microscopic hairs. One pair of widely separated dorsocentral bristles in line with the lateral edges of the scutellum; four very long scutellar bristles forming an approximate pair at each side of the scutellum. Propleura with two appressed bristles below the spiracle and a pair at the lower edge; mesopleura bare. Abdomen with four chitinized tergites, without conspicuous hairs except for scattered bristly hairs on the apical part of the sixth segment and some smaller ones on the seventh; ovipositor short, pointed, yellow, with sparse delicate bristly hairs toward apex,

apparently somewhat chitinized. Legs slender; front tibiae with a long dorsal bristle at the middle and a series of five or six minute ones distributed along the apical third; middle tibiae with a pair of dorsal bristles at the basal fourth and a series of about ten oblique rows of minute comb-like setae dorsally on the apical two-fifths, also with a pair of dorsal hair-seams that separate and become obsolete apically; hind tibiae with two complete dorsal hair-seams and two bristles external to the outer seam, one at the basal third and the other at the apical third, also with a few transverse comb-like rows of setae near apex internally. Costa extending well beyond the middle of the wing, its bristles minute and closely placed; first section of costa one-third longer than the second; third section not developed as the second and third veins are practically fused, leaving only a faint trace of the usual fork; first vein lying very close to the third which bears a small bristle at its base; fourth vein moderately curved and distinctly recurved at apex; fifth to seventh veins nearly straight.

Type from the Mainit River, 5,000 feet altitude, Mt. Apo, Mindanao, Philippines, collected on September 15, 1930 (C. F. Clagg).

This is a member of the typical subgenus *Diploneura*, quite similar to *D. dohrniphoridea* Assmuth from the Bismarck Archipelago in the enlarged, chitinized proboscis and unforked third vein. It differs in the row of small bristles on the front tibia, arrangement of frontal bristles and the four subequal scutellar bristles, as well as the presence of only four dorsal abdominal plates.

***Diploneura (Dohrniphora) cornuta* Bigot**

One male of this tropicopolitan form from Samar Island.

STICHILLUS Enderlein

***Stichillus adæqualis* Schmitz**

Naturh. Maandblad, vol. 16, p. 63 (1927).

Schmitz, Revision der Phoriden, p. 114 (1929).

There are three males and three females of this species. They were taken by Mr. Clagg along the Galog River at 5,000 feet, November 3d and 6th; along the Mainit River (6,000 ft.), November; on the Kidapawan Trail, at 7,000–8,000 feet, Cotabato Province September 30th; and at Lawa, Davao Province. They agree closely with Schmitz's description except that the lower lateral bristles of the front are closer to the postantennals than in his type material, but there is some variation in this respect in the specimens collected by Mr. Clagg. The female is similar to the male except for the smaller,

rounded antennæ which are of the form characteristic of the females of this genus. The types came from Heigthpol.

Some of the present specimens are larger than the type (3 mm.) and the others much smaller (1.7 mm.), but I can detect no structural differences.

CONICERA Meigen

***Conicera philippinensis* sp. nov.**

♂. Length 1.4 mm. Brownish-black, the pleuræ decidedly brown, especially below; legs yellowish brown, the four posterior femora and tibiæ piceous, except at tips; antennæ and palpi black; wings noticeably tinged with brown, the costa nearly black, but the other thick veins fuscous. Postantennal bristles very much smaller than the præocellar ones, rather close together; antial bristles apparently not developed; præocellar row of four strong equidistant bristles; postocellar bristles of about the same size as the præocellars and directly above them. Between the bristles the front bears scattered small bristly hairs, its surface opaque black. Antennæ of the usual pointed form, their tips reaching to the level of the lower ocellus. Palpi with short, equal bristles below on their apical half; cheeks each with a single strong bristle and two much smaller ones between it and the palpus near the lower eye-margin. Mesonotum slightly shining on the surface, clothed with small bristly hairs that form more or less distinct longitudinal lines; one pair of short dorsocentral bristles; scutellum semicircular, with two marginal bristles. Propleuræ with scattered hair-like bristles and a series of larger ones along the posterior margin; mesopleuræ entirely bare. Upper surface of abdomen very dull, the second and sixth tergites elongated, each nearly twice as long as one of the intervening ones. Base of hypopygium light brown. Anterior tibia with a dorsal bristle of moderate size at the basal third and a series of minute but very distinct bristles extending from this to the tip; anterior tarsus one-third longer than the tibia; middle tibia with a pair of dorsal bristles at the basal fourth, the antero-dorsal one somewhat shorter and slightly nearer the base of the tibia, also a postero-dorsal bristle at the apical fourth; hind tibia with a pair of almost equal dorsal bristles at the basal fourth and a strong antero-dorsal one just beyond the middle; beyond this bristle is a flattened pale-colored area entirely without hairs, extending to the tip of the tibia. Costa about two-fifths the wing-length, with very short cilia; first and third veins of the usual form, the first section of the costa about twice as long as the second (15:7); fourth vein gently and evenly curved;

fifth nearly straight; sixth as strong as the fourth and fifth; seventh only faintly indicated, entirely obsolete at the base. Halteres black.

This is the first species of the genus to be discovered in the Philippines. It differs from *C. procericornis* Schmitz from the Bismarck Archipelago by the shorter first section of the costa and much longer front tarsi. From the Formosan, *C. breviciliata* Schmitz, it differs in having the first section of the costa much longer and from *C. formosensis* Brues by the longer first section of the costa and brownish wings with lighter colored heavy veins. Whether the flattened, hairless area on the hind tibia is distinctive, I do not know. It is not present in *C. dauci* Meigen and is not mentioned in descriptions of other species of the genus. In *C. formosensis* Brues there is a slight indication of such a modification, but the area is clothed with minute hairs like the remainder of the tibia.

MEGASELIA Rondani

This genus is quite cosmopolitan and in practically every region is represented by many more species than any of the other genera comprising the family. That *Megaselia* is likewise the dominant genus of Phoridae in the Philippine Islands is shown conclusively by the present collection which contains no less than 68 species. Moreover this collection, although extensive, came from a very limited area in the region of Mt. Apo in Mindanao and must presumably represent only a very small part of the existing Philippine fauna. Unfortunately this fauna has hitherto remained practically unknown. Up to the present time some 579 species of *Megaselia* have been described, of which 360 occur in Europe, 93 in North American and 108 in the Neotropical region, so that although the genus is already of very great extent, the forms here included from this small area in the Philippines form a very considerable and unexpectedly large addition. It seems, indeed, that speciation has been far more active in this region than in any other so far examined. Certainly no collector could have obtained a comparable number of species in so limited a time in such a circumscribed area in Europe or America and one may reasonably expect future collections of Philippine Diptera to contain a great wealth of species of *Megaselia*.

Megaselia s. str. and *Aphiochaeta* are here regarded as subgenera, the proportion of species in each being about equal as is the case in Europe and most other parts of the world. The characters used in the key and descriptions are those in general use, but it may be stated specifically that in describing the wing venation, the length of the costa is measured from the somewhat larger bristle at the base of the

wing. The measurements of the costal sections are from the humeral cross-vein to the inner angle where the first vein enters, thence to the inner angle where the second vein enters, and thence to the tip of the costa, these three lines defining the length of the three sections of the costa. As has been done by Schmitz, the lowest pair of reclinate bristles on the front are termed antials (Antialen) and the proclinate bristles on the front, postantennals.

Key to the Philippine Species of Megaselia here Described

- Mesopleura above, near the base of the wing, bearing a patch of hairs or minute bristles, sometimes supplemented by one or two large, backwardly directed bristles. (Subgenus **Aphiochæta** Brues) . . . 1
- Mesopleura entirely bare, without such hairs or bristles. (Subgenus **Megaselia** s. str.) . . . 36
1. Mesopleura above with one very large bristle (very rarely two), in addition to a patch of short hairs or very minute bristles. . . 2
 2. Mesopleura above with a patch of minute bristles, two or several of which may be slightly larger than the others. . . 22
 2. Hind tibia with two rows of setulæ dorsally, one inside and one outside the hair-seam. . . 3
 3. Hind tibia with a single dorsal row of setulæ, placed inside the hair-seam, or with the setulæ obsolete. . . 8
 3. Thorax and legs yellow; tibial setulæ weaker, not as long as the width of the tibia; third section of costa less than half as long as the second. . . 4
 4. Thorax black or piceous; hind legs mainly black. . . 5
 4. Second section of costa longer than the first and fully four times as long as the third; tip of abdomen in ♀ beset with many short bristles; antennæ and palpi dark; large species.
M. scopifera sp. nov.
 5. Second section of costa considerably shorter than the first and not more than three times as long as the third; tip of abdomen in ♀ not bristly; antennæ and palpi pale; smaller species.
M. labialis sp. nov.
 5. First section of costa about as long as or longer than the second and third sections together. 6
 6. First section of costa much shorter than the second and third together; outer series of setulæ on hind tibia moderately strong; third section of costa three-fourths as long as the second.
M. baroringensis sp. nov.
 6. Outer series of setulæ on hind tibia strongly developed, its bristles almost as long as those of the inner series. 7

Outer series of setulae on hind tibia weakly developed, its bristles very much shorter than those of the inner series; upper post-antennal bristles separated by one-third the width of the front

M. nocturnalis sp. nov.

7. Knob of halteres white; third section of costa considerably more than half as long as the second; upper postantennal bristles separated by less than half the width of the front; fourth vein slightly bent at base..... *M. claggi* sp. nov.
 Knob of halteres brown; third section of costa but little more than half as long as the second; upper postantennal bristles separated by half the width of the front; fourth vein sharply bent at base..... *M. trisecta* sp. nov.
8. Front tarsi slender, not enlarged (if first joint is slightly enlarged see *M. lalunensis* and *M. perspinosa*, couplets 15 and 20)...10
 Front metatarsi strongly enlarged, other joints also distinctly widened.....9
9. Costa extending to the middle of the wing.....35
 Costa much less than half the length of the wing, the fourth vein very weakly curved; a very small species... *M. turbulenta* sp. nov.
10. Costa of female strongly thickened, especially toward the middle, its cilia very short; head and thorax yellow; abdomen black, with yellow spots at sides of second tergite... *M. costipennis* sp. nov.
 Costa not swollen.....11
11. Black, the abdomen beyond the second segment bright orange-yellow; one or two of the mesopleural bristles slightly longer than the others (see couplet 31).
 Black or brownish yellow; abdomen not thus colored.....12
12. Two scutellar bristles.....13
 More than two scutellar bristles.....20
13. Knob of halteres black or brown, not lighter than the body...14
 Knob of halteres white or pale yellow.....16
14. Female with a pointed, upcurved ovipositor; sixth abdominal segment bearing a group of long, stiff bristles on each side at apex; only two proclinate frontal bristles... *M. cultrata* sp. nov.
 Female without specialized ovipositor or such bristles at apex of abdomen; four proclinate frontal bristles.....15
15. Body and legs black or dark brown; antial bristles close to the eye margin; upper postantennal bristles unusually far apart.....
M. lalunensis sp. nov.
 Thorax and legs yellow; antial bristles far removed from the eye margin; upper postantennal bristles in the usual position.....
M. galogensis sp. nov.

16. Two very long mesopleural bristles in addition to the hairs; third vein simple, not forked..... *Plastophora dubitata* sp. nov.
Only one large mesopleural bristle; third vein forked as usual. .17
17. Front much higher than wide; costal cilia short.....18
Front quadrate.....19
18. Apex of abdomen (♀) bearing a pair of flat plates, each fringed apically with stout bristles..... *M. alata* sp. nov.
Apex of abdomen (♀) without such fringed plates.....
M. mainitensis sp. nov.
19. Costal cilia moderately long; first costal section as long as the second..... *M. sibulanensis* sp. nov.
Costal cilia extremely short; first section of costa much longer than the second and third together; third two-thirds as long as the first; hind tibia with a very weak series of setulae outside the seam (see couplet 6)..... *M. nocturnalis* sp. nov.
20. Six scutellar bristles, the middle one on each side much longer than the others; four large proclinate bristles.....
M. perspinosa sp. nov.
Four large, subequal scutellar bristles; lower proclinate bristles minute.....21
21. First section of costa longer than the second and third together.. *M. quadrispinosa* sp. nov.
First section of costa shorter than the second and third together.. *M. bakeri* sp. nov.
22. Hind tibiae with two rows of strong setulae, one inside and one outside the dorsal hair-seam, the outer one sometimes weak, especially in the male.....23
Hind tibiae with only one row of setulae, inside the seam; these sometimes weak or very weak.....29
23. Front metatarsus greatly swollen, or at least moderately thickened (♂), sometimes almost as large as the tibia.....24
Front metatarsus not noticeably enlarged.....25
24. Costal bristles very short; front metatarsus greatly swollen (♂); upper row of frontal bristles set high, the median pair much nearer to the level of the median ocellus than to that of the upper proclinate bristles; two or three bristles at apex of mesopleura noticeably longer than the others. *M. pectinata* sp. nov.
Costal bristles moderately long; front metatarsus moderately swollen; upper row of frontal bristles set lower, the median pair midway between the level of the ocellus and the upper proclinate bristles; mesopleural bristles all minute and approximately equal..... *M. pilifera* sp. nov.

25. Costal bristles long or of moderate length.....26
 Costal bristles very short; fourth vein weakly curved or practically straight; slender species, the hind tibiae slender, with the cilia widely spaced.....*M. humeralis* sp. nov.
26. Wings strongly infuscated; inner row of bristles on hind tibia very long, the outer row much weaker; legs very dark.....27
 Wings hyaline.....28
27. Halteres dark; two strong bristles and two bristly hairs on scutellum; costal bristles moderate.....*M. tinclipennis* sp. nov.
 Halteres white; four large, equally strong scutellar bristles; costal bristles long.....*M. umbrosa* sp. nov.
28. First section of the costa shorter than the second; smaller species, length 1.2 mm.....*M. curtipes* sp. nov.
 First section of the costa longer than the second; larger species, length over 2 mm.....*M. debilitata* sp. nov.
29. Abdomen black basally, yellow beyond the second or third segment.....30
 Not thus colored.....32
30. Postantennal bristles widely separated, occupying one-third the width of the front.....31
 Postantennal bristles close together, occupying only about one-fourth the width of the front.....*M. conspicua* sp. nov.
31. Fourth to sixth abdominal segments bright orange yellow; wing venation normal.....*M. fulvicauda* sp. nov.
 Third and following segments ochre yellow, costa greatly swollen and distorted.....*M. pallidicauda* sp. nov.
32. Costal cilia long, approximately as long as the distance between the costa and the third vein at its middle; costa at least half the wing length.....33
 Costal cilia much shorter; front metatarsus enlarged in the female; costa less than half the wing length....*M. brevineura* sp. nov.
33. First section of costa shorter than the second; costa extending well beyond the middle of the wing.....*M. aristata* sp. nov.
 First section of costa as long as or longer than the second; costa extending about to the middle of the wing.....34
34. First section of the costa twice as long as the second; brownish species.....*M. textilis* sp. nov.
 First section of costa much less than twice as long as the second; blackish species.....*M. apoënsis* sp. nov.
35. Costal cilia short; antennae of ordinary size. *M. inflatipes* sp. nov.
 Costal cilia of medium length; costa reaching to middle of wing.

- its third section one-third as long as the second; antennae of male distinctly enlarged..... *M. antennalis* sp. nov.
36. Hind tibiae with two rows of small bristles, one inside and one outside the dorsal hair-seam.....37
Hind tibiae with only one row of small bristles, inside the seam.....42
37. Four large, equally strong postantennal bristles, the upper pair widely separated.....38
Two strong and usually also two very weak postantennal bristles.....40
38. Scutellum with four large, equal bristles.....39
Scutellum with six bristles, the median pair rather small, the intermediate pair large and strong, and the lateral pair weakest....
M. repetenda sp. nov.
39. Abdomen with transverse segmental bands of pale yellow; knob of halteres pale; upper postantennal bristles separated by fully one-half the width of the front..... *M. calianensis* sp. nov.
Abdomen entirely black; knob of halteres dark; upper postantennal bristles separated by less than half the width of the front..... *M. equivocata* sp. nov.
40. Front yellow, considerably wider than high; antial bristle on each side far from the lowest lateral bristle, midway between the median line and the eye margin; first section of costa shorter than the second..... *M. bulbosa* sp. nov.
Front black, quadrate; antial bristle on each side lying close to the lowest lateral bristle; first section of costa longer than the second.....41
41. Body, front and four posterior legs black... *M. dimidiata* sp. nov.
Body and legs brownish yellow; front and abdominal spots black..... *M. quadrata* sp. nov.
42. Scutellum with four bristles of equal or nearly equal size; if lateral bristles are conspicuously smaller, there are only two strong postantennal bristles.....43
Scutellum with only two bristles and two very much smaller hairs.....48
43. Second section of costa as long as or longer than the first.....44
Second section of costa much shorter than the first.....46
44. Abdomen black; wings not spotted.....45
Abdomen pale yellow; wing with a dark spot between the second and third veins..... *M. maculipennis* sp. nov.
45. Front and pleurae yellow; front quadrate... *M. brevisecta* sp. nov.
Front and pleurae black; front wider than high.....
M. linoënsis sp. nov.

46. Lower postantennal bristles much reduced in size or absent... 47
 Upper and lower postantennal bristles of equal size; second and third veins very slightly divergent; antennae of male moderately enlarged, yellow; hypopygium with the lower corners produced and bearing a tuft of slender stiff bristles.....
M. scitifrons sp. nov.
47. Tip of abdomen of female prolonged, forming an ovipositor; head and thorax yellowish brown; antennae enlarged, especially in the male.....*M. tubulata* sp. nov.
 Abdomen of the usual form; body black....*M. montana* sp. nov.
48. Second vein present, the third vein forked near apex as usual... 49
 Second vein entirely absent, the third vein not forked..... 54
49. Costa distinctly thickened near the middle..... 50
 Costa normal, not at all thickened or enlarged..... 55
50. Costa greatly swollen near middle, normal on basal and apical thirds..... 52
 Costa moderately but distinctly thickened, about twice the usual width near the middle; third vein straight as usual (♀).... 51
51. Body black, wings distinctly infuscated, veins piceous; costal cilia long; first section of costa longest...*M. translocata* sp. nov.
 Thorax entirely yellow; wings faintly yellowish brown; veins brown; costal cilia short; second section of costa longest.....
M. mediata sp. nov.
52. Apex of abdomen in female with a pair of long upturned processes, one at each side; costa and third vein straight as usual.... 53
 Apex of abdomen in female simple, without such lateral, upcurved processes; costa and third vein strongly arcuate.....
M. mutata sp. nov.
53. Apical processes of abdomen long, thin, evenly curved and pointed, shaped like tarsal claws; the seventh tergite which lies just in front of them rhomboidal, truncate at apex.....
M. bihamulata sp. nov.
 Apical processes irregularly angulate, thicker; the seventh tergite triangular with a median ridge that is produced posteriorly into a downwardly curved spine.....*M. appendiculata* sp. nov.
54. Costa swollen; third vein straight, lying so very close to the costa that the two are practically contiguous...*M. directa* sp. nov.
 Costa normal, not swollen; third vein not unusually approximated to the costa.....*M. incompleta* sp. nov.
55. Halteres pale colored or white, usually much lighter than the thorax..... 56

- Halteres dark, usually much darker than the thorax.....58
56. Front, mesonotum and abdomen strongly shining, black; hind tibiae constricted at base, with the hair-seam deflected before the middle, beyond which is a broad, flat groove bearing the tibial setulae.....*M. politifrons* sp. nov.
Front, mesonotum and abdomen dull or subshining as usual; hind tibiae not constricted at base.....57
57. Front and mesonotum yellow, costal cilia short. *M. bisecta* sp. nov.
Front and mesonotum black, costal cilia long. *M. unisetosa* sp. nov.
58. Body almost entirely pale yellow, except for the dark brown fifth tergite and last abdominal segment which is black and prolonged into a stout rod-like ovipositor. . *M. rapidicornis* sp. nov.
Body, or at least the abdomen, in great part black.....59
59. Costal cilia long.....60
Costal cilia short and weak.....63
60. Thorax yellow or brownish yellow.....61
Thorax black or piceous; front highly polished; front tarsi strongly enlarged; very small species.....*M. clavipedella* sp. nov.
61. Four equal or nearly equal postantennal bristles.....62
Two strong and two very much weaker postantennal bristles....
M. equisecta sp. nov.
62. Upper pair of postantennal bristles much nearer to one another than to the eye-margin; front and antennae black; abdomen shining above.....*M. barbata* sp. nov.
Upper pair of postantennal bristles very far apart, much nearer to the eye-margin than to one another; front and antennae yellow; abdomen not shining.....*M. digressa* sp. nov.
63. First section of costa longer than the second.....64
First section of costa no longer than the second, usually distinctly shorter.....66
64. Lower pair of postantennal bristles as large as the upper pair; front much wider than high.....*M. extensifrons* sp. nov.
Lower postantennal bristles very much smaller than the upper ones; front quadrate.....65
65. Front, legs and thorax yellow; hind tibiae with only one series of bristles, inside the seam.....*M. apposita* sp. nov.
Front, thorax and four posterior legs black; hind tibiae with a series of extremely minute bristles outside the seam (see couplet 41).....*M. dinidiata* sp. nov.
66. Second section of the costa at least one-third longer than the first; mesonotum yellow.....67

- Second section of the costa never much longer than the first, at least less than one-third longer..... 68
67. Hair-seam of hind tibia forming a straight unbroken line.....
M. reversa sp. nov.
 Hair-seam of hind tibia bent outward at the middle, its apical half lying farther to the outside than the basal half.....
M. deflexa sp. nov.
68. Front tarsi simple, not enlarged, or if enlarged, uniformly swollen..... 69
 Second and following joints of front tarsi enlarged and flattened in the male; hypopygium very large, bent downward.....
M. patellipes sp. nov.
69. Hair-seam of hind tibiae (♀) forming a continuous, unbroken line..... 70
 Hair-seam of hind tibia bent outward at the middle, its apical half lying further to the outside than the basal half (see couplet 56)..... male of *M. politifrons* sp. nov.
70. Front quadrate..... 71
 Front considerably wider than high; preocellar row of bristles equidistant from the upper and lower margins of the front and forming practically a straight line..... *M. teoënsis* sp. nov.
71. Antial bristles as far from the eye-margin as from one another; male antennae enlarged, front tarsi noticeably thickened, especially the first joint..... *M. inflaticornis* sp. nov.
 Antial bristles much nearer to the eye-margin than to one another..... 72
72. Body black..... *M. perumbata* sp. nov.
 Mesonotum brownish or yellow; front usually mainly yellow (see couplet 67)..... *M. reversa* sp. nov.

OTHER PHILIPPINE SPECIES OF MEGASELIA

In addition to the species of *Megaselia* included in the preceding key there are four other species described from the Philippines.

Megaselia variata Malloch

Proc. U. S. Nat. Mus., vol. 43, p. 515 (1912).

This is apparently related to *M. setifrons* sp. nov. and *M. trisecta* sp. nov., but the wing venation is very different. The type locality is Manila.

Megaselia curtineura Brues

Journ. New York Entom. Soc., vol. 10, p. 6 (1909).

This species is similar to *M. brevineura* sp. nov., but the wing venation is different, the postantennal bristles are unequal and it is much lighter colored. The type locality is Manila.

Megaselia banksi Brues

Journ. New York Entom. Soc., vol. 10, p. 5 (1909).

Although the mesopleura is not described in the original description, it is bare and the species belongs to *Megaselia* s. str. It runs to *M. scitifrons* sp. nov. in the key given on a previous page, but differs from that species in the wings, especially the length of the divisions of the costa. The type locality is Manila.

Megaselia scopifera sp. nov.

♀. Length 3.4 mm. Head and thorax dull brown, the antennæ blackened below; upper surface of abdomen black, the basal half of the second tergite dull yellow; apical margin of the second and fourth narrowly pale and of the other tergites faintly so; pleuræ and legs testaceous, the tips of the hind femora black; halteres black, with brown stalk. Wings hyaline, with a distinct yellowish tinge, especially in front of the third vein; heavy veins light brown, light veins very well pigmented. Frontal bristles very long; four equally strong and stout postantennals, the lower pair separated by about one-fourth the width of the front and the upper ones by one-third; antial bristles set slightly nearer to the middle line than the lowest lateral bristle (which is close to the eye) and at a level between the lower and upper postantennals; præocellar row of four equidistant bristles forming a straight transverse line; ocellar bristles very strong; front with a distinct median impressed line, slightly wider than high. Postocular cilia strong, the uppermost one enlarged, half as long as the lateral ocellar bristle which sets just in front of it; cheeks each with two strong bristles. Antennæ and palpi of moderate size, the latter with well developed bristling. Mesonotum long, with very fine hairs; one pair of weak dorsocentral bristles; scutellum with only two bristles. Mesopleura clothed above with minute black hairs and bearing a single long bristle at the extreme hind margin near the middle of the patch of hairs. Abdomen with all the tergites fully chitinated; second segment short, with a tuft of backwardly directed bristles at each side covering the lateral aspect; third tergite somewhat longer than the second; fourth narrower, quadrangular, nearly as long as the second

and third combined; fifth much shorter, with a dense fringe of irregular stiff bristly hairs along the lateral and posterior margins; sixth apically with sparse bristly hairs; seventh covered with sparse, larger ones; eighth with a dense covering of backwardly directed ones. Middle and hind tibiae with a double series of cilia, one on each side of the seam. On the hind tibiae the cilia of the inner series are larger, about two-thirds the width of the tibia, and the outer series of smaller cilia extends only to the apical third; the space between the two series is a groove, destitute of hairs; tarsi very slender. Wings long and narrow; costal vein three-fifths of the wing length, its cilia very short and densely placed; first section of costa distinctly shorter than the second which is four times as long as the third; third vein forking at a wide angle, the second vein not quite so long as the third section of the costa; fourth vein short, evenly and rather strongly curved; fifth and sixth weakly bisinuate, seventh long, nearly straight.

Type from Angan Falls, Sibulan River (3,000 ft.), November 11, 1930 (C. F. Clagg).

This species resembles somewhat *M. atriclava* Brues from Formosa, but that species lacks the stiff bristly hairs at the apex of the abdomen. From *M. fortiuscula* Brues from Java, of which only the male is known it differs in venation, by the shorter costa and lower front. Among the other members of the genus hitherto described from this region I do not find any other species with which it might be confused.

***Megaselia labialis* sp. nov. (Fig. 2)**

♂. Length 1.8–2.1 mm. Brownish yellow; front, antennae, palpi, pleurae and legs lighter and more or less testaceous; abdomen with a blackened transverse band including the third segment and less distinctly the apical part of the second and sides of the fourth. Front about quadrate, with distinct median impressed line, the ocellar tubercle black; four long, equal postantennal bristles, the lower pair separated by one-fourth the width of the front and the upper by one-half its width; antial bristles at the level of the upper postantennals and almost as near to the eye as the lowest line; praecellar bristles equidistant, in a line that is moderately convex below; ocellar bristles large. Antennae small, with a pubescent arista as long as the head height; palpi with rather strong bristles along the lower edge. Proboscis with the labella forming a flattened, shield-shaped plate, concave below, convex and hairy above, almost as wide as the front and widely separating the palpi which lie at each side of it. Cheeks each with a stout bristle and several smaller ones extending upwards toward the

antenna. Mesonotum subshining, rather long, with one pair of dorso-central bristles and no distinct smaller bristles between them. Scutellum with two strong bristles. Second abdominal tergite lengthened, twice as long as the third, not bristly at the sides, other tergites about equal, the seventh somewhat longer and sharply narrowed apically. Hind tibia with a series of about eleven moderately long cilia inside the seam and a weaker series just outside the seam, extending nearly to the tip of the tibia; tarsi very long and slender. Wings long and narrow, with a slight yellowish cast; heavy veins light brown; light veins pale; costa about three-fifths the wing length, its cilia very short and closely placed; second section of costa distinctly shorter than the first and three times as long as the third; fork of third vein rather

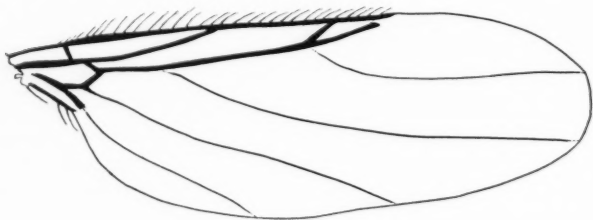


FIGURE 2. *Megaselia labialis* sp. nov., wing.

acute, the second vein nearly as long as the third section of costa; fourth vein sharply curved at base and straight beyond; fifth to seventh practically straight.

♀. Differs by its larger size (about 2.5 mm.) and more uniformly dark abdomen. There are only four completely formed abdominal tergites and a very small transverse one on the fifth segment. The proboscis lacks entirely the peculiar modification of the labella seen in the male. In some males the abdomen is considerably lighter or darker in color, but it usually shows the darker or black transverse band.

Type from the Galog River (5,000 ft.) Mt. Apo, Mindanao, Philippines, September 7, 1930. Seven other males and two females from the following localities: Galog River (5,000 ft.), Sept. 26–Oct. 22, 1930; Sibulan River (2,000 ft.), Oct. 20, 1930; Mt. Mayo (4–5,000 ft.), Jan. 30, 1931; Lalun Mts. (5,500 ft.) Bakrayan (8,000 ft.). This is similar to *M. fortiuscula* Brues from Java, but differs by the quadrate front.

***Megaselia baroringensis* sp. nov.**

♀. Length 2.4 mm. Dark brown, abdomen black; pleurae below and anterior legs lighter. Front black above, with the lower third light reddish brown; antennae red brown; palpi pale yellow; scutellum darker than the mesonotum, nearly black; front legs testaceous, with the tarsi dark, middle and hind legs successively darker, the hind femora not blackened at tip. Wings with a brown tinge, the heavy veins light brown; halteres light brown. Front quadrate, with distinct median line; four postantennal bristles, the upper pair larger, twice as far apart as the lower ones and separated by about half the width of the front; antial bristles at the level of the upper postantennals, set next to the eye, directly below the lowest lateral bristles; praecellar row of four equidistant bristles, strongly curved downward medially; all bristles strong; front clothed with sparse hairs. Antennae of moderate size; palpi with strong downwardly directed bristles along their lower margins; cheeks each with two large bristles and a series of much smaller ones upward to the antenna; mesonotum clothed with fine hairs which become bristle-like and more sparse before the scutellum; two dorsocentral bristles and two on the scutellum. Pleura above with fine appressed hairs and one long, backwardly directed bristle. Abdomen with six well chitinated tergites, the second scarcely elongated, with a few bristly hairs at each side. Apex of abdomen without conspicuous hairs or bristles. Legs rather slender; hind femora scarcely more than one-third as broad as long; hind tibiae with two rows of moderately long bristles, those in the posterodorsal row longer, but less than the width of the tibia. Wings long and narrow; costa three-fifths the wing length; width of wing two-fifths its length; costa with dense, very short cilia; second section almost three-fourths as long as the first (17:24) and about one-third longer than the third (17:13), the cell formed by the fork of the third vein unusually long as the second vein is only one-half as long as the third section of the costa. Fourth vein straight except at extreme base, following practically straight, the seventh long.

Type from Baroring River (6000 ft.), November 8, 1930.

***Megaselia nocturnal*is sp. nov.**

♀. Length 2.1 mm. Black, the palpi pale yellowish; legs brownish yellow, the hind pair not infuscated; front entirely black, slightly pruinose; antennae reddish brown; abdomen more or less pruinose, especially on the third to fifth tergites; wings hyaline, with fuscous veins; halteres brownish testaceous. Front subshining, slightly higher

than wide, with very minute hairs; median groove very finely impressed; four postantennal bristles of approximately equal size, the upper pair set level with the antial bristles, separated by one-third the width of the front, lower pair by one-sixth its width; antial bristle close to the eye, directly below the lowest lateral; median pair of praecellar bristles nearer to one another than to the lateral ones, the row nearly straight; all frontal bristles strong, but not very large. Antennae small; palpi with moderate-sized bristles apically below; cheeks each with two bristles and a decreasing series above extending toward the antenna. Mesonotum subshining, finely hairy, with one pair of strong dorsocentral bristles and four small bristles disposed between them. Scutellum with two long bristles. Mesopleura with a patch of short appressed bristly hairs above and one very long bristle. Abdominal tergites 2-6 of about equal length, the second with several bristly hairs at each side; apex of abdomen without conspicuous hairs or bristles. Legs slender; the front tarsi, however, distinctly thickened apically. Hind tibiae with two rows of cilia, those of the postero-dorsal row shorter than the width of the tibia and the bristles of the outer row much shorter and weaker. Wings long and narrow; costa reaching to slightly beyond the middle of the wing, its cilia very short and densely placed; first section longer than the other two together (23:18); second section one-half longer than the third (10:7); cell at fork of third vein rather long, the second vein strongly sloped, two-thirds as long as the third section of the costa; fourth vein slightly curved on basal third, straight beyond; following practically straight.

Type from Teo Ridge (6,500 ft.), September, 1930; paratype from the Galog River (5,000 ft.), October 8, 1930, taken in a trap lantern.

The outer row of setulae on the hind tibiae is very feebly developed and might easily be overlooked.

***Megaselia claggi* sp. nov.**

♀. Length 2.5 mm. Black; the pleurae brown below, with a yellowish brown area above the hind coxa; antennae reddish; darkened at tips; palpi deep yellow; front legs yellow, middle pair slightly infuscated, hind pair strongly so, with the tibiae almost black, except at base; wings faintly yellowish with light brown venation; halteres white with dark stalk. Front about quadrate, with median impressed line; four postantennal bristles, the lower pair much shorter than the upper ones and less than half as widely separated, the upper ones separated by scarcely more than one-third the width of the front, set at the same level as the antial bristles which are farther from the eye

than the lowest lateral bristles; præocellar bristles forming a straight row close to the ocellar triangle, the median pair distinctly closer to one another than to the lateral bristle; ocellar row as usual; all the frontal bristles moderately strong. Antennæ of normal size; palpi with strong, closely set bristles; cheeks each with a large downwardly directed bristle, scarcely larger than the next three in the row that extends toward the antenna. Mesopleura with a long patch of fine, appressed hairs above and one large bristle. Mesonotum densely and finely hairy, the hairs larger and more scattered near the scutellum; two strong dorsocentral bristles without conspicuous bristly hairs between them; scutellum unusually wide and short, with two very long bristles. Abdomen broad, velvety black with the incisures between the tergites pale, the surface irregularly glaucous; six chitinized tergites, all of about equal length, the second entirely without bristly hairs at the sides; apex of abdomen without conspicuous hairs. Legs stout, particularly the hind tibiæ, all the tarsi slender. Hind femora nearly half as wide as long; their tibiæ with two rows of strong cilia, the postero-dorsal series of seven bristles about as long as the width of the tibia, the outer row similar and scarcely weaker. Costa extending to well beyond the middle of the wing (49: 90), with very short, densely placed cilia; first section nearly one-half longer than the other two together (26: 18), third about two-thirds as long as the second ($7\frac{1}{2}$: 11); fourth vein slightly bent at base, straight beyond; following nearly straight; seventh long.

Type from Baroring River (6,000 ft.), November 8, 1930. This species resembles *M. lanceolata* Brues from Formosa, but differs in venation.

***Megaselia trisecta* sp. nov. (Fig. 3)**

♀. Length 2.2 mm. Dark brown, the front lighter below, with the ocellar triangle black; mesonotum fuscous, the pleuræ lighter, especially the metapleura below; abdomen entirely black; antennæ reddish yellow, darker at tips; palpi clear yellow; front legs testaceous, posterior ones darker, especially the tips of the hind femora and tibiæ; wings slightly yellowish, the veins rather light brown; halteres brown. Front about quadrate, clothed with sparse hairs, median impressed line distinct. Four postantennal bristles of about equal size, the upper ones three times as far apart as the lower and separated by one-half the width of the front; antial bristles set at the level of the upper postantennals and distinctly further from the eye than the lowest lateral bristles; præocellar row curving slightly downward medially, its bristles equidistant. Antennæ of moderate size; cheeks each with

two very strong downwardly directed bristles and several very much smaller ones forming a line that extends upward toward the antenna. Palpi of good size, but not noticeably enlarged, with a single series of strong bristles along the lower edge. Mesonotum subshining, minutely hairy, less densely so behind; one pair of dorsocentral bristles; scutellum broad and short, with two strong marginal bristles. Mesopleura with a patch of small appressed hairs and one long bristle above. Abdomen with all the tergites chitinized; second tergite with a series of about four noticeable bristles that extend obliquely backward placed along the lateral margin; third tergite noticeably elongated, considerably longer than the second; fourth very short; fifth elongated, as long as the third; tip of abdomen without noticeable hairs or

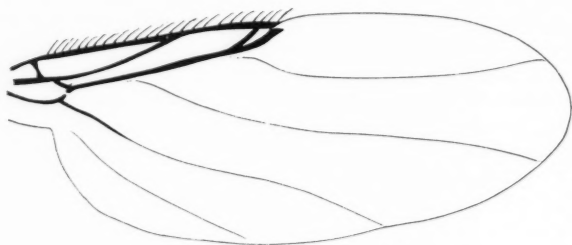


FIGURE 3. *Megaselia trisecta* sp. nov., wing.

bristles. Legs moderately stout, including the tarsi, except those of the middle legs which are very slender. Hind tibiae with two rows of bristles, those of the postero-dorsal series nearly as long as the width of the tibia; those of the outer row clearly shorter, but still strong. Costa three-fifths the wing length (53 : 85); with very short and closely placed cilia; first section about as long as the second and third together (23 : 24), the third three-fifths as long as the second (9 : 15); fork of third vein not very acute, the second vein one-half as long as the third section of the costa; fourth vein very sharply curved at the base, straight beyond; fifth slightly bent near middle; sixth and seventh straight.

Type from the Galog River (5,000 ft.), September 22, 1936.

***Megaselia inflatipes* sp. nov. (Fig. 4)**

♂. Length 1.7-2.0 mm. Black, the thorax brown-black anteriorly and on the pleurae; antennae piceous; palpi brown; legs brownish-

yellow; tips of hind femora, their tibiae and tarsi darker; hypopygial lamella yellow. Wings rather strongly tinged with brown, the venation dark fuscous. Halteres black. Front slightly, but distinctly wider than high; shining, although slightly pollinose in certain lights; median frontal line very weakly indicated. Four postantennal bristles of nearly equal size; lower ones separated by one-sixth the width of the front; upper ones by one-third; antial bristles set well below the level of the upper postantennals and slightly farther from the eye than the lowest lateral bristles, which are themselves not quite so close as

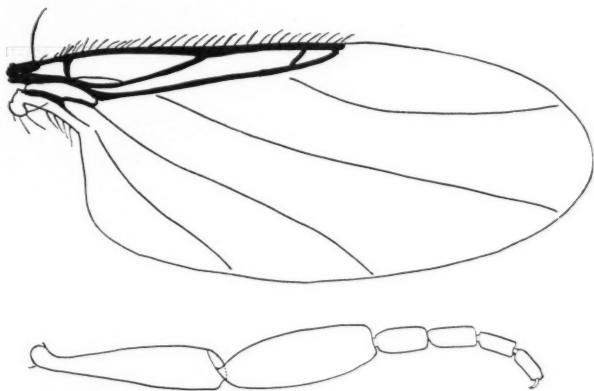


FIGURE 4. *Megaselia inflatipes* sp. nov. a, wing; b, front tarsus of male.

usual to the eye-margin; præocellar bristles equidistant, forming a row that is strongly bowed downwards medially. Antennæ of medium size, not distinctly enlarged; palpi with irregular, rather strong bristles below. Cheek with two strong bristles below and a series of about four very short ones extending upward toward the antenna. Mesonotum subshining, clothed with minute silken brown hairs; one pair of dorsocentral bristles and two very long scutellar bristles set unusually far apart. Mesopleura thinly hairy above, with one long backwardly directed bristle. Abdomen dull black above, the tergites indistinctly margined with whitish behind; second tergite not elongated, without noticeable bristles at the sides; sixth segment with scattered minute bristles at the sides and a transverse row of about eight just before the posterior margin. Hypopygium small, projecting

downward as three pieces, a shining black, blunt, quadrangular one on the left side and two clavate smaller ones on the right; sides of the seventh segment below with several small bristles near the posterior edge. Costa extending about to the middle of the wing, its cilia short, but not excessively so; first section of costa slightly longer than the second; third two-fifths as long as the second (28 : 25 : 10); furcation of third vein not very acute, the second vein rising sharply to the costa; fourth vein evenly and gently curved; fifth and sixth veins nearly straight, very slightly bisinuate; seventh slightly bent at the middle. Front metatarsus as broad or slightly broader than, and nearly as long as the tibia, its inner surface destitute of hairs, except along the sides; following joints noticeably widened, especially the second; hind tibia with only a single row of setulae, these rather weak and much shorter than the width of the tibia.

Type from the Sibulan River (Angan Falls, 3000 ft.), Mt. Apo, November 11, 1930. Ten paratypes; two from the Sibulan River (4,000–8,000 ft.), Sept.–Nov., 1930; four from the Galog River (5,000 ft.), Nov., 1930; three from the Mainit River (6,000 ft.), Sept.; one from Teo Ridge (5,500 ft.), Sept. There is one other male from the Galog River in which the supra-antennal bristles are further apart, the upper ones separated by fully half the width of the front, but it seems otherwise essentially similar to the foregoing series.

***Megaselia antennalis* sp. nov. (Fig. 5)**

♂. Length 1.3 mm. Mesonotum piceous; abdomen black, with narrow whitish margins on segments one to three; front and antennae black; palpi pale yellowish; pleurae piceous, somewhat paler below; legs brownish yellow, the hind femora slightly blackened at the tips; halteres black; hypopygium shining black, its lamella dark with paler tip. Front slightly wider than high, with conspicuously strong bristles; four equally large postantennal bristles, the upper pair twice as far from one another as the lower pair, occupying slightly more than one-fourth the width of the front, set a little higher than the antial bristles which are very close to and scarcely below the lowest lateral bristles; middle frontal row of bristles equidistant, in a straight transverse line. Antennae oval, conspicuously larger than usual, the third joint as long as the width of the eye in lateral view; arista dorsal, weakly pubescent; palpi with rather short bristles near tips, bare elsewhere; cheeks each with a pair of strong, divergent bristles. Mesonotum subshining, rather coarsely hairy, with one pair of dorso-central bristles; two large scutellar bristles and two weak hairs;

mesopleura with a group of small bristly hairs above and one backwardly directed bristle. Abdominal tergites with opaque surface, all of about equal length, except the fifth which is slightly shorter; second without conspicuous lateral tufts of hairs or bristles although the lateral margins of all tergites are more or less distinctly fringed with short hairs, these extending across the hind margin of the fifth and generally over the surface of the sixth. Hypopygium rather large, oval, with some bristly hairs below, bearing a large projection apically on the left side; this consists of a stout, centrally constricted base and a very slender apical part, extending at a right angle upwards and then curving toward the right side; right hand side of hypopygium with a short blunt process that extends dorsally toward the lamella. Front

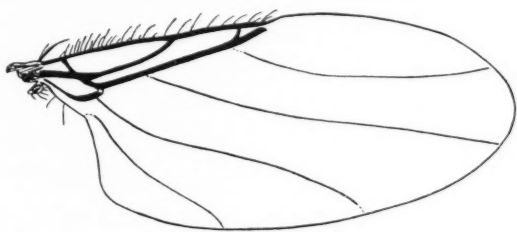


FIGURE 5. *Megaselia antennalis* sp. nov., wing.

tarsi noticeably swollen, the first joint nearly as broad as the tip of the tibia and one-half its length; second to fourth joints also much broadened but successively less so, each twice as long as broad; hind tibiae each with a posterodorsal series of moderately weak setae and three or four transverse comb-like rows of bristles inwardly at tip. Costa barely half the wing length, its cilia of medium length; first section as long as the second and three times as long as the third (14 : 15 : 5); third vein ascending steeply to the costa; fourth vein evenly arcuate; fifth nearly straight; sixth sinuate; seventh weakly curved.

Type from Lalun Mts., (5,500 ft.), Davao Province, Mindanao, Philippines, December 31, 1930. Paratype male from the Galog River, 5,000 ft., October 22, 1930.

This species is readily distinguishable by the strikingly enlarged antennae.

***Megaselia costipennis* sp. nov.**

♀. Length 2.8 mm. Head and thorax pale brownish yellow; front more or less blackened above, the antennae and palpi pale yellow;

abdomen piceous above, the second tergite with a large yellow spot at each side and the first three tergites each with a narrow marginal yellow line; legs yellowish testaceous. Wings hyaline, with dark brown veins, except that the costa is very much paler brown; halteres black. Front quadrate, the median impressed line very faintly indicated. Four postantennal bristles, the lower pair very small and the upper pair, although conspicuously larger, are very much shorter than the other frontal bristles and separated by only about one-sixth the width of the front; antial bristles on a level with the upper postantennals, unusually near together, their insertions equidistant between the eye and median line of front; lowest lateral bristles close to the eye and far above the antial bristles; upper transverse row of four equidistant bristles bowed gently downwards medially, almost twice as far from the antial bristles as from the ocellar row. Antennæ small, more strongly ovate than usual, with the arista inserted much before the tip. Palpi small, with a few strong bristles apically below. Postocular cilia strongly enlarged below, the lower two very long; inner edge of eye with a series of about nine long, thin bristles extending from the lower corner to the level of the antennæ. Proboscis short, stout, but not strongly sclerotized, the lower oral margin forming a sharply raised curved edge. Mesonotum with one pair of very widely separated dorsocentral bristles. Mesopleura above with a small patch of fine bristly hairs and one long, backwardly directed bristle which is about as long as the greatest width of the hind tibia. Second to fourth abdominal tergites of about equal length, the second slightly bristly at the sides; fifth tergite somewhat longer, subtriangular, but with the apex narrowly rounded; sixth smaller, but of about the same shape; apical segments membranous. Legs rather stout, especially the hind pair; hind tibiæ with a single row of setulae inside the seam; these are weak basally but become moderately strong apically. Costa reaching to about the middle of the wing, conspicuously thickened, the thickening beginning at the basal third of the first section and gradually tapering off beyond the tip of the first vein; widest part as thick as the length of the second vein; costal cilia short and closely placed. First section of costa barely shorter than the second, which is three times as long as the third (37 : 40 : 13). First, second and third veins not thickened; fork of the second quite acute, the second vein strongly oblique; fourth vein strongly bent at base, straight beyond, except for a sharp recurving at extreme tip; fifth slightly curved; sixth and seventh barely sinuate.

Type from the Sibulan River (3,000 ft.) at Angan Falls, Mt. Apo, Philippines, November 11, 1930 (C. F. Clagg).

This species is very distinct by the striking configuration of the thickened costa. The bristling of the head about the lower part of the eyes is also unusual. The form of the costa is very similar to that of *Phalacrotophora epeira* Brues. In a number of species of *Megaselia* a thickening of the costa occurs in the female also, but I know of no species where it is as in the present form.

***Megaselia cultrata* sp. nov.**

♀. Length 1.5 mm. Front and mesonotum dark brown, the front lighter on the sides and below; pleurae pale brown, the legs lighter, yellowish, with the posterior tibiae blackened at tips; abdomen piceous above, with pale marginal lines on the tergites; ovipositor black; wings hyaline, with brown veins; halteres black; antennae and palpi very dark brownish. Wings faintly infuscated, veins dark brown; halteres black. Front quadrate, its surface rather dull; only two postantennal bristles, separated by one-fourth the width of the front, the lower pair represented by two very minute bristly hairs; antial bristles as far from the eye as from the median line, set higher than the postantennals and below the lowest lateral bristles; middle frontal row of four equidistant bristles curving strongly downwards medially; all frontal bristles comparatively large and strong. Antennae small, almost black, with a long slender arista. Palpi dark brown, with moderately long but weak bristles on apical half below. Cheeks with two divergent downwardly directed bristles; inner margin of eye with unusually long, thin bristles in a row extending upwards to the antennae. Mesonotum strongly convex, with one pair of rather short dorsocentral bristles; scutellum with two large strong bristles and a pair of minute ones set further to the sides. Mesopleura with a patch of hairs above and one large bristle set near the bottom of the patch and extending to the root of the wing. Abdomen above with dull, velvety surface, except the extruded ovipositor which is subshining; quite sharply narrowed beyond the fourth tergite; basal five tergites of about equal length; the fifth very narrow, longer than broad at base and with a pair of discal bristles nearly as long as the tergite, and apically below the corner of the tergite on each side with a group of about four similar bristles; following segment short, tubular, the next and last nearly twice as long, forming a slender tubular ovipositor which is evenly curved upward from the base to tip and bears a few minute erect bristly hairs near the tip. Legs slender, setulae of hind tibia in a single series inside of the seam, weakly developed, each one less than half the diameter of the tibia. Costa reaching barely beyond the middle of

the wing, its cilia very short and closely placed; first section as long as the second, third about one-fourth as long (13 : 12 : 3); fork of third vein acute and as the third vein is bent upwards just beyond the fork the third costal section is very short; fourth vein evenly curved; fifth and sixth feebly sinuate; seventh long, nearly straight.

Type from the Sibulan River (7-8,000 ft.), Mt. Apo, Mindanao, Philippines, September 6, 1930 (C. F. Clagg).

Aside from the ovipositor, this species is noticeable on account of the very short third section of the costa.

***Megaselia lalunensis* sp. nov. (Fig. 6)**

♂. Length 1.8-2.0 mm. A rather stout species. Black or piceous with the pleurae brown, lighter below; legs yellowish brown with the

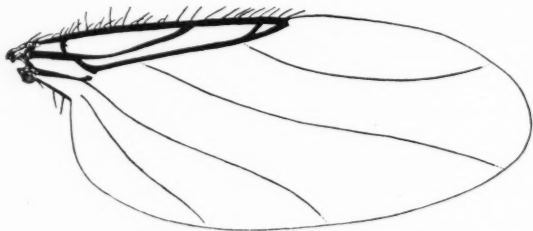


FIGURE 6. *Megaselia lalunensis* sp. nov., wing.

hind femora blackened at tips; abdomen black, the base of the second tergite broadly and of the four following ones narrowly pale yellow, the second to fifth tergites also with very narrow pale posterior margins. Wings slightly infuscated, with dark veins. Halteres black. Front distinctly broader than high; four approximately equal post-antennal bristles, the upper pair twice as far apart as the lower ones and separated by fully one-half the width of the front; antial bristles much lower than the upper postantennals, far below the lowest lateral bristles and rather near to the eye although not so close as the lateral bristles; middle frontal row of four equidistant bristles bowed downwards medially; all bristles of the front unusually large and stout. Antennae brownish, not at all enlarged, with a long, very slender arista. Cheeks each with three stout bristles near the lower corner of the eye and several very small ones above these on the inner eye margin. Palpi pale yellow, with short, stout bristles apically. Mesonotum shining, with dense hairs anteriorly and sparse ones behind; one pair

of dorsocentral bristles which are noticeably weaker than several strong bristles along the lateral edge of the mesonotum. Scutellum with two bristles. Mesopleura with a patch of sparse small bristly hairs and one large backwardly directed bristle about as long as the width of the patch. Second to fifth abdominal tergites gradually decreasing in length, bristly along the sides and the second with a few much stronger bristles; surface of these tergites with noticeable bristly hairs, larger on the apical segments. Hypopygium small, without any noticeable projections or spines, directed downwards and about the size and shape of the short lamella, except that it is sharply expanded and truncate at tip. Front legs with the tarsi slightly thickened, but not flattened; the tibia slender; first tarsal joint three-fifths as thick and four-sevenths as wide as the tibia, four times as long as thick; following joints each fully three times as long as wide. Hind legs rather stout, with a row of strong setulae inside the seam, these nearly as long as the width of the tibia. Costa reaching to the middle of the wing, its bristles long and closely placed, equalling the distance between the costa and base of the third vein; first section as long as the other two combined; second nearly three times as long as the third (19 : 13 : 5); fourth vein gently and evenly arcuate; fifth practically straight; sixth bisinuate; seventh long, faintly sinuate.

Type from Lalun Mountains (5,500 ft.), Davao Province, Mindanao, Philippines, December 31, 1930 (C. F. Clagg). Paratype ♂ from the Mainit River, Mt. Apo (5,000 ft.), September 15, 1930 (C. F. Clagg).

***Megaselia galogensis* sp. nov.**

♀. Length 2 mm. Light yellow, the front very much darkened, with the ocellar triangle black, abdomen above light fuscous; antennae honey yellow or brown; palpi very pale yellow; hind femora blackened at tip. Wings quite distinctly brownish, the veins dark; halteres dark brown. Front about quadrate, with distinctly impressed median line; four postantennal bristles, the upper ones much stronger than the lower ones and nearly twice as far apart, occupying nearly one-third the width of the front; antial bristles midway between the upper postantennals and the eye margin and slightly lower; lowest lateral bristle above the antial and much nearer the eye margin; transverse frontal row of four equidistant bristles forming a line that curves downward medially and lies about midway between the ocellars and postantennals. Cheeks each with two downwardly directed bristles and a series of minute bristles extending upwards along the eye toward the antenna. Antennae small; palpi strongly flattened, with long

bristles below on the apical half. Mesonotum shining, sparsely hairy, with one pair of strong bristles. Mesopleura above with a patch of fine, sparse bristly hairs and one long backwardly directed bristle, set farther below the upper corner than is usual. Abdominal tergites one to five shining, of approximately equal length; sixth narrower and shorter. Hind tibia with a single series of setulae inside the seam; these are of moderate size, distinctly shorter than the width of the tibia. Costa slightly more than half as long as the wing-length; first section one-quarter longer than the second, which is nearly two and one-half times as long as the third (15 : 12 : 5). Costal cilia very long, closely placed; fork of third vein acute, the second vein strongly oblique. Fourth vein weakly curved, somewhat more strongly so very near to its base; fifth vein slightly bent at the middle; sixth faintly bisinuate, seventh long and nearly straight.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 22, 1930 (C. F. Clagg).

This species presents no striking characters, but is readily distinguishable by the characters given in the key.

***Megaselia alata* sp. nov.**

♀. Length 2-2.2 mm. Black; narrow lateral edges of mesonotum behind wings and broad posterior border of scutellum brownish yellow; antennae and lower margin of front brown; palpi deep yellow; legs yellowish brown; wings slightly tinged with brown, with fuscous veins; halteres pale with brownish tinge. Front one-half higher than broad between the eyes, subshining, distinctly pollinose and with scattered minute hairs; bristles strong. Four postantennal bristles, the lower pair much smaller than the upper which in turn are distinctly smaller than the reclinate bristles; upper pair twice as far apart as the lower, occupying one-third the width of the front and placed clearly below the antials which are half as far from the eye-margin; lowest lateral bristles close to the eye, placed at the lower third of the front; frontal row of four in a straight, transverse line at the upper third of the front. Antennae small, rounded, with a slender, nearly bare arista; palpi with stout bristles. Cheek with one stout downwardly directed bristle and a series of unusually long ones between this and the antenna. Mesonotum with one pair of strong dorsocentral bristles; scutellum large, nearly twice as wide as long, with two very strong bristles and a minute bristle on each side lateral to these. Mesopleura above with a patch of hairs and one strong backwardly directed bristle. Abdomen with four subequal tergites normally developed.

membranous beyond, the basal three subopaque, the fourth shining; second tergite with a tuft of bristly hairs at each side. Apex of abdomen (seventh segment?) more or less tubular, more than half as wide as the scutellum; extruded from this is the minute membranous tip with its cerci and beneath them a pair of small thin translucent horizontal whitish plates, each bearing about seven long bristles that spread out fan-shaped. The bristles are very stout at base, but finely attenuated toward the tip, about as long as the distance between the dorsocentral bristles. Legs moderately strong, the hind femora and tibiae quite stout; hind tibiae with a single row of closely placed setulae inside the seam, each about as long as the width of the tibia. Costa extending slightly beyond the middle of the wing (5 : 9 : 5), with short, fine, closely placed bristles; first section of costa as long as the second and third together, the third nearly one-third as long as the second (21 : 16 : 5); fourth vein weakly curved at the base, straight beyond; fifth practically straight; sixth feebly sinuous, seventh long, very gently curved.

Type from the Mainit River (5,500 ft.) Mt. Apo, Mindanao, Philippines, September 14, 1930. Two paratypes from the Galog River (5,000 ft.), October 21 and the Sibulan River (7,000-8,000 ft.), September 6.

This species is characterized by the very peculiar fan-shaped bristling of the abdomen. The bristles may be partly withdrawn into the apex of the abdomen where they lie ventral to the extreme tip and its pair of cercus-like appendages.

***Megaselia mainitensis* sp. nov.**

♀. Length 1.7 mm. Black; the legs pale brownish yellow, the hind pair darker, especially on the external side of the femora and tibiae; antennae brown, blackened on apical portion; palpi light yellow; wings hyaline, with dark veins; halteres pale brown, much lighter than the body. Front between one-third and one-quarter higher than wide, its surface subshining and scarcely hairy, but with the lower part whitish pollinose; median impressed line distinct; four proclinate bristles, the lower pair half as far apart as the upper ones which occupy somewhat less than one-third the width of the front; antial bristles well removed from the eye, set lower than the upper post-antennals; lowest lateral bristles halfway between those of the frontal row and very close to the eye; frontal row of four equidistant bristles forming a straight transverse line. Antennae small, with the arista nearly bare; palpi with long, but not stout bristles; cheeks each with

a divergent pair of large bristles and a row of short ones extending upwards toward the antenna. Mesonotum with two dorsocentral bristles and several rather strong appressed bristles between them; scutellum with two long, stout bristles. Mesopleura with a patch of short hairs above and one long, backwardly directed bristle. Abdominal tergites of about equal length, six of them fully chitinized. Hind tibiae with a single row of setulae inside the seam, these rather stout and about as long as the width of the tibia. Costa extending to about the middle of the wing, its bristles very short, delicate and densely placed; first section of costa as long as the second and three times as long as the third (15 : 15 : 5); fork of third vein acute; fourth vein evenly bent, fifth gently curved; sixth slightly sinuate; seventh long.

Type from the Mainit River (5,500 ft.), Mt. Apo, Mindanao, Philippines, September 14, 1930 (C. F. Clagg).

This species is most similar to *M. sibulanensis*, but differs in the narrower front and much shorter first costal section.

***Megaselia sibulanensis* (Fig. 7)**

♂. Length 1.4 mm. Black, the pleurae very dark brown; posterior legs piceous with the tarsi pale brown; four anterior legs pale, blackened only on the femora; antennae dark brown; palpi deep yellow; wings hyaline with dark veins; halteres pale. Front about as wide as high, with very long stout bristles, four postantennal bristles, the lower ones half as far apart as the upper pair which occupy one-third the width of the front; antial bristles set much below the upper postantennals and midway between them and the eye; lowest lateral bristle close to the eye and on a level with the upper postantennals; upper frontal row of four equidistant bristles forming a line that is bowed downwards medially. Antennae small, with a long, rather strongly pubescent arista; palpi with long, strong, closely placed bristles on the apical half below; cheek with two strong downwardly directed bristles. Mesonotum with one pair of small dorsocentral bristles, very finely pubescent anteriorly, more coarsely so behind; scutellum with one pair of long, stout bristles. Mesopleura above with a patch of sparse hairs and one long, backwardly directed bristle near the lower edge of the patch. None of the abdominal tergites elongated, of about equal length, except the fifth which is noticeably shorter. Hypopygium visible from above as a rounded, subtriangular shining protuberance, about as long as the sixth tergite; seen from the side it is simple, small with pruinose surface and a few short scattered bristles; lamella yellow, short. Hind tibia with a series of rather short

setulae inside the seam, these widely spaced apically; outside the seam the hairs are longer, but do not form a second row of setulae; all joints of front tarsi cylindrical, not enlarged nor flattened, although not so slender as in some species. Costa extending to the middle of the wing, with long, widely spaced bristles; first section of costa barely longer than the second which is three times as long as the third (11 : 10 : 3); fork of third vein unusually acute; fourth vein gently curved throughout; fifth slightly bent on basal half; sixth and seventh feebly sinuous.

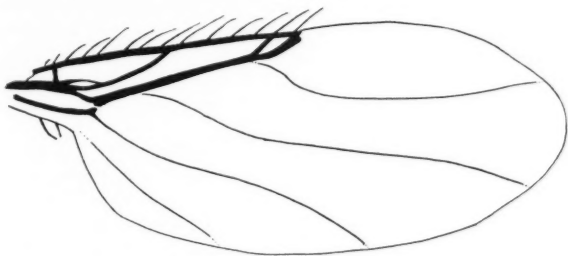


FIGURE 7. *Megaselia sibulanensis* ♂, sp. nov., wing.

♀. Larger, length 1.7–2.0 mm. Essentially like the male, but the thorax is lighter, with the mesonotum piceous and the pleurae brown. The long bristle on the mesopleura is noticeably shorter, although still very conspicuously longer than the hairs.

Male type from the Sibulan River (3,000 ft.) at Angan Falls, Mt. Apo, Mindanao, Philippines, November 11, 1930 (C. F. Clagg). One male paratype from the Mainit River (5,500 ft.), October 7, and two females from the Sibulan River (7–8,000 ft.) September 21 and the Galog River (5,000 ft.), October 22.

***Megaselia perspinosa* sp. nov. (Fig. 8)**

♂. Length 1.7–2.0 mm. Black; legs and pleurae piceous, the front legs fuscous; palpi and hypopygial lamella yellowish brown; wings hyaline, with dark veins; halteres black or piceous. Front one-fifth broader than high, with strongly impressed median groove and very large stout bristles; four postantennal bristles of about equal size, the upper ones twice as far apart as the lower, occupying fully one-third the width of the front; antial bristles close to the eye, on a level with the lower postantennals and far below the lowest lateral bristles which are on a level with the antials; upper frontal bristles equidistant from

one another, forming a nearly straight, transverse line. Antennae slightly enlarged, as long as half the width of the front; palpi small, but with unusually strong bristles; two stout, divergent bristles on each cheek and a series of very small ones extending from them to the base of the antenna; another, equally strong pair on the propleura next to the front coxa. Mesonotum subshining, densely hairy above, but without enlarged bristly hairs between the single pair of dorso-central bristles. Scutellum with six marginal bristles, one very long one at the middle of each side, a smaller pair nearer the middle and another small pair near the extreme lateral angle. Mesopleura above with a patch of rather coarse and sparse hairs near the bottom of which is a very strong, single backwardly directed bristle. Abdominal

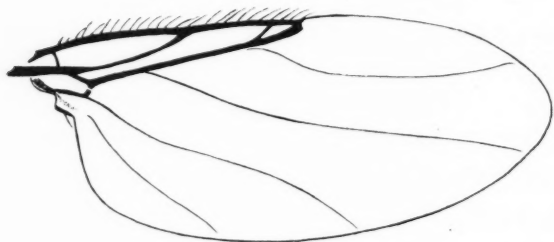


FIGURE 8. *Megascelia perspinosa* sp. nov., wing.

tergites of rather even length, the first two slightly longer and the sides of the second bearing a patch of bristly hairs; margin of fifth tergite and surface of the sixth with sparse bristly hairs. Hypopygium bearing below at apex a shining blade-like projection that extends backwards toward the median line. Legs rather stout; front tarsi slightly thickened, the first joint two-thirds as long as the tibia, those following three to four times as long as thick; hind tibia with a single row of setulae inside the seam, on the apical half these are distinctly shorter than the width of the tibia; inner surface of tibia at tip with several transverse rows of comb-like scaly hairs. Costa extending very slightly beyond the middle of the wing, its cilia moderately short, densely placed; first section of costa about as long as the second and third together, third slightly more than one-third the length of the second (18 : 14 : 5); fork of third vein acute; fourth vein more noticeably curved at the base; fifth faintly sinuate; sixth and seventh more strongly so, especially the sixth.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, September 6, 1930 (C. F. Clagg). Two paratypes, one from the Galog River (5,000 ft.) September 26, and the other from the Mainit River (5,000 ft.) September 24.

This species resembles *M. antennalis* but the front tarsi are weakly thickened and the configuration of the heavy veins in the wing is very different; the six bristles on the scutellum is an unusual, although by no means unique character. The hypopygial process is blade-like, not geniculate as in *M. antennalis*.

***Megaselia quadrispinosa* sp. nov.**

♂. Length 1.75 mm. Head, thorax and legs brownish yellow; abdomen and halteres black; front honey yellow, the antennae rather dark yellowish brown and the palpi clear yellow; mesonotum dull brownish yellow, the pleurae very pale, almost testaceous below; the legs slightly darker than the pleurae, with the hind femora blackened at tips; wings very distinctly brownish, with dark veins. Front about one-fourth wider than high; two large postantennal bristles separated by about one-sixth the width of the front, the lower pair practically absent, being indicated only by two minute bristly hairs; antial bristles set lower than the postantennals, each one as far from the eye as from the median line and set considerably below the lowest lateral bristle which is further from the eye than usual; frontal row of four nearer to the ocelli than usual, the median pair nearer to one another than to the lateral bristle. Antennae of normal size, with a rather short, thick arista. Palpi with slender, but not shortened bristles below on apical half. Cheeks each with two strong divergent bristles below and a series of about four long slender ones extending upward to the antenna. Mesonotum more coarsely and sparsely hairy behind, its surface subshining. Scutellum long and narrow, with strongly sloping sides; four long, subequal scutellar bristles forming a rather close pair near the middle of each sloping lateral edge. Mesopleura above with a small patch of scattered hairs and one stout backwardly directed bristle set toward the lower part of the patch. Abdomen with the second tergite longest, third to fifth gradually shorter; sixth much narrower, clothed with scattered small bristles and margined behind with about six small bristles each about as long as the tergite; hypopygium small, globose. Hind tibia with the dorsal seam quite distinctly angulately bent before the middle, with a single row of rather weak bristles inside the seam. Costa reaching to the middle of the wing; its first section longer than the other two together, the

third very short, little more than one-third as long as the second (18 : 11 : 4); costal bristles short and very closely placed; fork of third vein short, acute, forming a very small cell; fourth vein very weakly curved, with briefly recurved base and apex; fifth and sixth sinuate; seventh long, feebly curved.

Type from Lalun Mts. (5,500 ft.), Davao Province, Mindanao, Philippines (C. F. Clagg).

This species is striking on account of the absence of the lower post-antennal bristles, broad front, quadrisetose scutellum, angulate hair-seam on hind tibia and the greatly lengthened first section of costa.

***Megaselia bakeri* sp. nov.**

♀. Length 1.7 mm. Brownish yellow, the abdomen darker, becoming black beyond the fifth segment; wings hyaline, with brown venation; halteres brown, darker than the body. Front about one-fourth wider than high; only two postantennal bristles well developed, the lower pair very small; upper ones separated by about one-sixth the width of the front, barely above the antial bristles which are equidistant from the eye and median line; lowest lateral bristles well above the antials and not as close to the eye as usual; four upper frontal bristles forming a straight transverse row with the median pair slightly nearer to one another than to the lateral bristle, this row placed higher on the front than is usual. Antennæ small, with a densely pubescent arista. Palpi small, elongate and narrowed to a rather acute apex; below with moderately strong bristles. Proboscis projecting between the palpi and about as long as the latter, the oral opening large, with a strongly raised margin. Cheeks each with three strong bristles and several shorter ones extending upwards toward the base of the antenna. Mesonotum shining, thinly pubescent. Scutellum with four marginal bristles, the lateral one on each side shorter, but very well developed. Abdomen with the second tergite much lengthened, about one-half longer than the third, conspicuously bristly along the sides; third to fifth tergites subequal; sixth much narrowed and slightly longer, sparsely clothed with short bristles and bearing some longer ones apically; apical segment slightly projecting from within the apex of the sixth as a short strongly compressed structure which probably acts as an ovipositor. Mesopleura above with a patch of scattered small hairs and one large strong, backwardly directed bristle near the lower posterior edge of the patch. Hind tibiæ with a single series of weak bristles inside the seam. Costa reaching well beyond the middle of the wing (4 : 7 : 5), its bristles short and closely placed; first section

of costa almost as long as the second and four times as long as the third (16 : 17 : 4), the cell formed by the fork of the third vein very small; fourth vein evenly curved; fifth strongly sinuous; sixth sinuous apically; seventh curved gently.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 22, 1930 (C. F. Clagg).

This species is strikingly similar to the preceding, especially in the shape and chaetotaxy of the front. However the wing venation is so conspicuously different that I cannot believe that the two may be sexes of the same species. This is named in memory of Prof. C. F. Baker in recognition of his contributions to the entomology of the Philippines.

***Megaselia pectinata* sp. nov. (Fig. 9)**

♂. Length 2.7 mm. Black or piceous with parts of the abdomen and the legs lighter; wings hyaline. Front black, antennae dark brown;

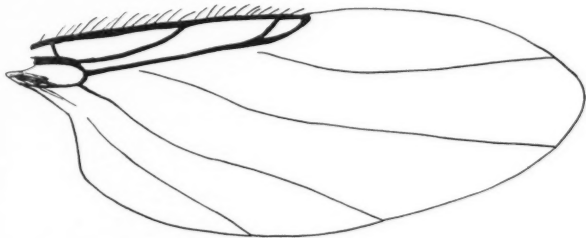


FIGURE 9. *Megaselia pectinata* sp. nov., wing.

thorax above black, the edges of the mesonotum brown; pleurae black above, honey yellow below; legs pale yellowish testaceous, the front tarsi light brown; hind femora black at tips and the hind tibiae considerably darkened; abdomen above black, with the base of the first tergite, a pale median basal spot on tergites 2-5, and the narrow hind margins of tergites 1-5, fulvous; hypopygial lamella pale yellow; halteres pale brown, with a small black spot at tip. Front large, quadrate, the ocellar tubercle scarcely raised and the median line indistinctly impressed; four postantennal bristles, the upper ones larger than the lower, about twice as far apart and occupying distinctly more than one-third the width of the front; antial bristles set practically at the lower margin, not far removed from the eye; lowest frontal bristle next to the eye, well above the upper postantennals;

upper frontal row of four forming a row that is strongly curved downwards medially. Antennae of moderate size. Cheeks each with two very long bristles and a series of shorter ones extending upwards to the antenna. Mesonotum large, shining, thinly pubescent, with one pair of long dorsocentral bristles; scutellum large and broad, twice as wide as long, with a large bristle near each side and just lateral to this near the lateral angle a much smaller bristle. Abdominal tergites of approximately equal length except that the sixth is slightly longer; slightly bristly along the sides and faintly so on the posterior margins of the tergites, those on the sixth more conspicuous. Mesopleura hairy above, with two or three of the hairs along the posterior edge clearly longer and bristle-like although not large as in the species with a single large bristle in this position. Front tarsi greatly swollen, the first joint nearly as long as and about as thick as the tibia; second joint very stout and the following less so although much thicker than usual. Hind tibiae with a row of strong setulae inside the seam and a second, weaker row outside the seam, the latter series not extending to the tip of the tibia. Costa extending to the middle of the wing, its bristles very short and dense; first section of costa as long as the other two together, the third about one-third the length of the second (21 : 15 : 6); fork of third vein very acute; fourth vein only slightly curved, lying much nearer the costal margin than is usual; fifth feebly curved at base; sixth and seventh nearly straight.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, November 4, 1930 (C. F. Clagg).

This is a very distinct form on account of the form and chaetotaxy of the front, enlarged front tarsi, mesopleural bristling and tibial setulae.

***Megaselia pilifera* sp. nov.**

♂. Length 1.3 mm. Black; palpi honey yellow; legs brown, the front pair lighter, more honey-yellow; antennae piceous. Front very slightly higher than broad, with distinct tubercle and median groove. Four postantennal bristles of approximately equal size, the upper pair twice as far apart as the lower, occupying fully one-third the width of the front; antial bristles set very low and close to the eye-margin, well below the upper postantennals; upper frontal bristles forming a nearly straight transverse row midway between the lower ocellar and the upper postantennal bristles. Antennae small; palpi with very long dense bristles below on the apical half. Cheeks each with three strong divergent bristles and a series of short ones extending thence toward the base of the antenna. Mesonotum dull, with unusually

strong bristles along the lateral margin; one pair of dorso central bristles; scutellum narrow, subtriangular, with a single, strong bristle on each side. Abdomen dull black, with the tergites of approximately equal length, practically destitute of hairs except for a marginal row of bristle-like hairs at the apex of the sixth tergite. Hypopygium small, simple, pleura above with a patch of short hairs, the patch small however, as it does not extend so far forward as usual. Front tarsi considerably thickened but much less strongly so than in the preceding species; first tarsal joint a little more than half as long as the tibia and at least one-third narrower than the tibia; second tarsal joint less than twice as long as thick. Hind tibiae with a row of strong setulae inside the seam and a second row of shorter ones outside the seam, this row not quite complete apically. Costa reaching to about the middle of the wing, its bristles long, but closely placed; first section of costa about equal to the second, the third only about one-fourth the length of the second (11 : 11 : 3); fork of third vein acute, forming an unusually small cell; fourth vein gently and evenly curved; fifth feebly bent before the middle; sixth and seventh practically straight.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 8, 1930 (C. F. Clagg).

This species is similar in many respects to the previous one, but is much smaller in size and obviously distinct by the form and chaetotaxy of the front, less strongly swollen front tarsi and mesopleural bristling.

***Megaselia humeralis* sp. nov.**

♀. Length 1.7 mm. Black, legs yellowish brown; front yellowish along the lower margin; antennae fuscous; palpi pale yellow; humeri of thorax yellowish brown and pleurae also stained with brown below. Wings hyaline, with a weak brownish cast, the veins dark. Halteres pale, whitish, although more or less darkly stained in places, especially on the stalk. Front quadrate, sparsely pubescent and strongly pruinose below; ocellar tubercle strongly elevated, median frontal groove distinct, but extremely delicate; four moderately large, subequal postantennal bristles, the upper pair thrice as far apart as the lower ones, occupying considerably more than one-third the width of the front; antial bristles almost as near to the eye as the lowest lateral bristles and far below them, on a level with the upper postantennals; upper row of four frontal bristles equidistant, forming a straight line unusually high on the front, fully three times as far from the upper postantennal bristles as from the median ocellus; the lower lateral bristles are also set much higher than is usual. Antennae

small, with delicate arista; palpi with moderately strong bristles below. Cheeks each with three moderately large, divergent bristles below and a series of several smaller ones extending upwards toward the antennæ. Mesonotum subshining, with two strong, rather approximated dorsocentral bristles. Scutellum moderately broad, with two large marginal bristles set rather close together. Mesopleura above with a patch of short hairs, but without any noticeably larger hairs or bristles. Abdomen above subopaque, the tergites of about equal length, weakly sclerotized and bare except for a small group of bristly hairs at the side of the second segment. Hind tibia with an inner row of long, but weak and widely spaced setulæ inside the seam and a series of much smaller ones outside the seam; although small, the latter are clearly bristles and not hairs. Costa reaching well beyond the middle of the wing (37 : 67); first section of costa longer than the other two together, the second section slightly more than twice as long as the third; fork of third vein obtuse, the second vein rising so sharply to costa that it is only about half as long as the last section of the third vein; fourth vein practically straight; fifth weakly curved medially; sixth and seventh nearly straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 9, 1930 (C. F. Clagg).

***Megaselia tinctipennis* sp. nov. (Fig. 10)**

♂. Length 1.9 mm. Black, the palpi and front legs beyond the knees yellowish brown; wings strongly infuscated, with very dark veins; halteres black. Front quadrate, the ocellar tubercle and median frontal line distinct; surface opaque; bristles strong. Four post-antennal bristles of nearly equal size, the upper ones very widely separated, occupying distinctly more than one-third the width of the front; lower ones less than half as far apart as the upper ones; antials on a level with the lower postantennals, close to the eye; lowest lateral bristles forming with the upper postantennals a straight transverse row; upper frontal row of four equidistant bristles forming a line that curves downward slightly at the middle. Cheeks each with three strong, divergent bristles and a dense series of long slender ones extending up toward the antenna. Antennæ small, with long, thinly pubescent arista; palpi small, with moderate bristles below on apical half. Mesonotum subshining, rather densely hairy, especially behind, with one pair of rather weak dorsocentral bristles; scutellum broad, with one pair of strong bristles and a bristly hair just lateral to each of these. Abdomen dull velvety black, the second and fourth tergites

noticeably lengthened; second with a small tuft of bristles laterally at apex; and the following segments with some scattered bristly hairs along the lateral margins. Mesopleura above with a patch of rather good-sized and sparse hairs, none of which are noticeably larger than the others. Front tarsi slightly stouter than usual, but not noticeably swollen or enlarged; hind tibiae with a series of short, but stout and closely placed setulae inside the seam and a second series of much shorter ones outside the seam present only on the basal half of the tibia. Costa extending distinctly beyond the middle of the wing, with moderately long, closely placed bristles; first section of costa nearly as long as the second and third sections together, the third

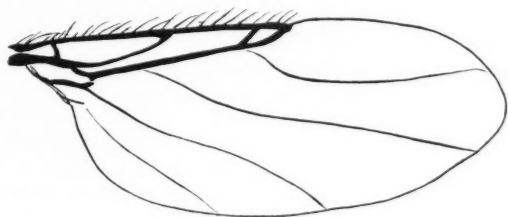


FIGURE 10. *Megaselia tinctipennis* sp. nov., wing.

about one-third as long as the second (17 : 14 : 5); fourth vein curved at extreme base, very gently so beyond and recurved at tip; fifth sinuous basally; sixth and seventh each feebly sinuous.

♀. Length 2.0 mm. Essentially like the male, but with the halteres brown instead of black and with the outer row of bristles on the hind tibia not quite so small and continuing more or less distinctly to the tip of the tibia.

Type from the Galog River (7-8,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 6, 1930 (C. F. Clagg). Also eight other males from the Galog River, Sept.-Nov. and Baroring River (7,000 ft.) Nov. 7-8. One female from the Galog River, Sept. 5.

***Megaselia umbrosa* sp. nov.**

♀. Length 2.0 mm. Black, the pleurae piceous below; front legs and middle ones beyond the femora brown; palpi yellowish brown; wings considerably infuscated; halteres white. Frontal bristles long and stout; front quadrate, with strongly raised ocellar tubercle and weak median impressed line. Four equally strong postantennal

bristles, the upper pair separated by one-third and the lower ones by one-fifth the width of the front; antial bristles set distinctly above the level of the lower postantennals and well away from the eye; lowest lateral bristles next to the eye at the level of the upper postantennals; bristles of upper frontal row equidistant, forming a line that is weakly bent down medially. Antennae small, with long, noticeably pectinate arista; palpi small, strongly bristled below on apical half; cheeks each with four large bristles below and a series of much smaller ones extending up toward the antenna. Mesonotum shining, with rather conspicuous minute hairs, especially behind; one pair of dorsocentral bristles and four long, equally strong marginal bristles on the scutellum, which is twice as wide as long. Mesopleura with a patch of sparse hairs above of which two along the posterior edge below are longer although not approaching in size the long bristle seen in some species in that they are no longer than the width of the patch of hairs. None of the abdominal tergites noticeably elongated, their surface subshining and sparsely clothed with short hairs; all the tergites fully sclerotized; terminal appendages pale, soft. Hind tibiae with two rows of bristles, the row inside the seam complete, its stout bristles nearly as long as the width of the tibia; outer row composed of very short bristles which become obsolete on the apical half of the tibia; inner side of tibia at apex with four or five transverse rows of short comb-like bristles. Costa extending slightly beyond the middle of the wing, with long and closely placed bristles which are about as long as the distance between the costa and third vein; first section of costa barely shorter than the second which is nearly three times as long as the third (16 : 17 : 6); fourth vein curved basally, nearly straight beyond and recurved at tip; fifth vein curved before the middle, straight beyond; sixth and seventh nearly straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 24, 1930 (C. F. Clagg).

This species is similar to the preceding, but the costal bristles are much longer, the wings not so strongly infuscated, the halteres white and there are four large scutellar bristles.

***Megaselia curtipes* sp. nov.**

♀. Length 1.2 mm. Black; pleurae piceous, the trochanters pale yellow and the legs dark brown with the front pair yellow; antennae dark fuscous; palpi honey yellow. Wings hyaline, the veins rather light brown. Front quadrate, with raised ocellar tubercle and deep median groove. Four postantennal bristles, the upper pair consider-

ably the larger, separated by fully one-third the width of the front; lower pair by one-sixth the frontal width; antial bristles midway between the level of the lower and upper postantennals and well removed from the eye; lowest lateral bristles well above the upper postantennals, next to the eye; upper frontal series of four equidistant, forming a line strongly curved downwards medially. Cheeks each with three long, divergent downwardly directed bristles and a series of closely placed delicate bristles extending upwards to the antenna. Antennae small, with strongly pubescent arista; palpi with moderately stout bristles on the apical third. Mesonotum subshining, more sparsely hairy than usual; one pair of dorsocentral bristles; scutellum with a single pair of long, stout bristles. Mesopleura above with a small patch of sparse hairs, none of which are at all lengthened. Front tarsi noticeably shortened; slightly widened also, the first joint less than half as thick as the tibia. Hind tibiae with two rows of bristles, one inside the seam composed of widely spaced bristles which are very short basally and become about two-thirds as long as the width of the tibia apically; the row outside the seam composed of much shorter bristles of even length, but this row extends only to the apical third of the tibia; hind tibia internally at tip with two very short transverse rows of comb-like bristles. Abdominal tergites fully sclerotized, none of them noticeably lengthened; sides of the second tergite without bristles; surface of abdomen above sub-shining. Costa reaching to the middle of the wing, with moderately long, rather sparsely placed bristles; first section of costa slightly shorter than the second, which is about three times as long as the third (11 : 12 : 4); fork of third vein very acute, the cell thus formed small and narrow; fourth vein curved basally, nearly straight beyond; fifth weakly bent at the middle; sixth faintly sinuate; seventh long, straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 24, 1930 (C. F. Clagg).

***Megaselia debilitata* sp. nov.**

♀. Length 2.2 mm. Black, the humeri brown; pleurae piceous; palpi and front coxae pale yellowish; front legs yellowish brown, middle legs darker and the hind pair dark brown; halteres brown; wings very slightly infuscated, with fuscous venation. Front quadrate, with well defined ocellar tubercle and median frontal groove; four large, equal postantennal bristles, the upper pair separated by fully one-third the width of the front and the lower pair by one-sixth its width; antial bristles set at a level midway between the upper and

lower postantennals, next the lower margin of the front, but well separated from the eye; lowest lateral bristles slightly above the upper postantennals; upper frontal bristles equidistant, forming a row that curves downward very strongly at the middle, the median pair set very much lower than the lateral bristles. Antennae small. Palpi with very strong bristles below at tip, but those just beyond the middle much weaker. Cheeks each with four strong bristles directed downwards and forwards and a very closely set series of thin bristles above these, extending upwards toward the antennae. Mesonotum subshining, its hairs large and bristle-like near the scutellum; one pair of strong dorsocentral bristles; scutellum rather long and narrow, subtriangular, with a single pair of strong bristles. Mesopleura above with a patch of sparse hairs. Abdomen dull black above, the tergites of about equal length. Front tarsi slightly stouter than usual. Hind tibiae with two series of bristles; those inside the seam rather widely spaced, shorter than the width of the tibia; those of the outer row much shorter and more closely placed, obsolete on the apical third of the tibia; hind tibia at tip with three transverse rows of comb-like bristles on the inner surface. Costa extending slightly beyond the middle of the wing, with moderately long, closely placed bristles; first section of costa slightly longer than the second; second less than three times as long as the third (18 : 16 : 6). Fourth vein curved more strongly basally, nearly straight beyond and recurved at extreme apex; fifth vein feebly sinuous; sixth more strongly so; seventh long, nearly straight.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 22, 1930 (C. F. Clagg).

This species is quite similar to the preceding, but is much larger, the relative length of the costal sections is different and the costal bristles shorter, the postantennal bristles are of equal size. Considering these differences, I do not feel that the two could be considered conspecific.

***Megaselia conspicua* sp. nov.**

♀. Length 1.9 mm. Black, with the fourth and following tergites orange yellow and the entire venter somewhat paler yellow; palpi and legs deep brown, except the front pair which are brownish yellow; wings subhyaline, with a slight brown tinge, veins very dark brown; halteres fuscous. Front quadrate, its surface shining, with strongly elevated ocellar tubercle and very conspicuous median groove; four postantennal bristles, the upper pair large occupying scarcely more than one-fifth the width of the front; lower pair very small and close

together; antial bristles set very little below the level of the lowest lateral bristle, well inward from the latter, but closer to it than to the upper postantennals; four equidistant bristles in the upper frontal row forming a nearly straight line near to the ocelli. Antennae small, with long, pubescent arista; palpi very small, but with long bristles below on apical half. Proboscis short, broad, spoon-shaped, heavily sclerotized and projecting slightly in front of the oral margin. Mesonotum subshining, finely pilose; one pair of small dorsocentral bristles with several bristly hairs between them; scutellum subtriangular, with a single pair of unusually long bristles. Surface of abdomen opaque; tergites subequal, except that the second is noticeably elongated, fully twice as long as the third; sixth and following tergites membranous, not sclerotized. Mesopleura above with a patch of minute bristly hairs. Front tarsi moderately slender, although stouter than those on the other legs; hind tibiae with a single series of rather short and closely placed bristles inside the seam, at the tip with two short transverse rows of comb-like bristles on the inner side. Wings short and broad, the costa extending to the middle; costal bristles rather long and closely placed; first section of costa as long as the second, which is three times as long as the third; first and third veins unusually far from the costa, so that the heavy veins occupy a broader space than usual; fork of third vein acute, the cell thus formed small and acutely pointed basally; fourth vein weakly curved, somewhat more strongly so basally; fifth and sixth each strongly sinuate; seventh nearly straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 14, 1930 (C. F. Clagg).

***Megaselia fulvicauda* sp. nov.**

♀. Length 3.0 mm. Black, with the palpi and four anterior tibiae and tarsi brown; abdomen with tergites four to six orange-yellow and the entire venter a paler, but quite brilliant yellow. Wings slightly tinged with yellowish, the venation brown. Front quadrate or slightly wider than high, with well developed ocellar tubercle and median frontal groove, its surface shining and with few hairs; four nearly equal postantennal bristles, the upper pair separated by one-third, and the lower pair by one-fifth the width of the front; antial bristles set close to the eye, midway between the level of the upper and lower postantennals; lowest lateral bristles well above the antials; upper frontal bristles forming a line deeply bent downwards medially which is parallel with one formed by the bases of the antial and lowest lateral

bristles. Antennae small, with long, very thin arista. Palpi with sparse, but unusually long bristles. Cheeks each with two very long, downwardly directed bristles and a closely set series of long bristly hairs above these, extending upwards to the antennae. Mesonotum subopaque, with unusually delicate short hairs; one pair of dorso-central bristles. Scutellum with four large bristles, the median pair especially long. Surface of abdomen dull, the tergites all of approximately equal length, the second with a few short bristles at each side. Mesopleura with a patch of hairs above, one or two of which near the lower posterior edge are slightly larger than the others. Hind tibiae with a single row of bristles behind, inside the seam these are rather widely spaced and nearly as long as the width of the tibia; inner surface of tibia at tip with about six transverse rows of comb-like bristles. Costa extending well beyond the middle of the wing, about five-ninths the length of the wing; first section of costa slightly longer than the second which is about two and one-half times as long as the third (20 : 18 : 7); costal bristles rather short, delicate and set close together; cell at fork of third vein very narrow and small; fourth vein weakly curved, recurved at the base; fifth and sixth veins strongly sinuous; seventh long and practically straight. Halteres light brownish.

Type from Lalun Mts. (5,000 ft.), Davao Province, Mindanao, Philippines, July 5, 1930 (C. F. Clagg).

This species is very conspicuous on account of its large size and striking coloration. It is similar in color to the Indian *M. apicalis* Brues from which it differs by the stronger tibial bristles and shorter first costal section.

***Megaselia pallidicauda* sp. nov.**

♂. Length 1.9 mm. Black, the abdomen beyond the second segment ochre yellow, then growing more brownish toward apex; joints and the tibiae and tarsi of front legs yellowish, the other legs beyond the black femora brownish. Wings hyaline, with nearly black heavy veins and dark thin veins; halteres yellow. Front slightly higher than broad, with strongly raised ocellar tubercle and faintly impressed median groove; frontal bristles long and stout; four postantennal bristles of nearly equal size, the upper pair separated by one-third the width of the front, lower ones by about one-sixth its width; antial bristles set near the lower edge of the front, well away from the eye and at a level midway between the two pairs of postantennal bristles; lowest lateral bristles well above the level of the upper postantennals; upper row of four equidistant frontal bristles forming a line that

curves downward slightly at the middle. Antennae small, with long, pubescent arista; palpi distinctly compressed, with a single row of long, stout bristles below on apical half. Proboscis ovate, rounded at tip, flat below and extending slightly forward so that its apex is visible from above. Cheeks each with a pair of long downwardly directed bristles and a series of very small ones that extend upwards toward the antennae. Mesonotum shining, quite coarsely hairy behind, with one pair of dorsocentral bristles; scutellum fully twice as wide as long, with a long bristle near each side and a much smaller one near the extreme lateral angle. Mesopleura above with a patch of minute bristly hairs. Abdomen above subopaque, the second tergite very strongly lengthened, one-half longer than the third which is also unusually large; following tergites very small. Hypopygium small, an extremely short dorsal lamella fringed with bristly hairs and a long, pale colored ventral process that extends backwards and curves upward finger-like with hairs below and short, stubby pale bristle-like erect hairs on its upper surface. Front tarsi long and slender; hind tibiae with a single series of rather long, closely placed bristles inside the seam, near the tip internally with six or seven transverse rows of comb-like bristles. Costa extending to about the middle of the wing, with moderately long, delicate bristles. Heavy veins strongly modified; costa very thin at base, then suddenly thickened to become gradually thinner again and very thin at apex; first vein very thin; third vein slightly thicker than usual; second vein extremely short and thin, about half as long as the third section of the costa; first section of costa noticeably shorter than the second which is three times as long as the third (13 : 15 : 5). Fourth vein gently curved and broadly recurved at base, nearer than usual to the costal margin of the wing; following veins nearly straight, thin and delicate, but perfectly defined.

Type from Lalun Mountains (5,000 ft.), Davao Province, Mindanao, Philippines, July 2, 1930 (C. F. Clagg).

This species might be the male of either of the two preceding species on account of the bicolored abdomen, but as it differs from *M. conspicua* so conspicuously in frontal chaetotaxy and from *M. fulvicauda* in having the third abdominal tergite yellow instead of black, I hardly think it could be either species. The wing venation is so highly modified that it is of no help in answering the question.

***Megaselia brevineura* sp. nov. (Fig. 11)**

♂. Length 1.0 mm. Thorax piceous, head and abdomen black; antennae brownish yellow, palpi deep yellow; pleurae somewhat lighter

than the mesonotum; legs yellowish brown; wings hyaline, with piceous veins; halteres black; lamella of hypopygium pale yellow. Front quadrate; four postantennal bristles; the upper pair larger and separated by a little more than one-fourth the width of the front and twice as far apart as those of the lower pair; antial bristles set much below and considerably nearer to the median line than the lowest lateral bristles; middle frontal row of four equidistant bristles forming a straight transverse line, rather close to the ocellar row; median frontal line well developed, the surface of the front sparsely hairy and subshining. Antennæ of normal size, with a rather stout arista. Palpi small, with very long, stout bristles at apex and on outer half below; cheeks each with three stout bristles. Mesonotum subshining, clothed

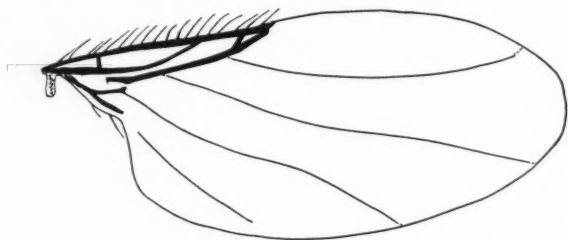


FIGURE 11. *Megaselia brevineura* sp. nov., wing.

with minute hairs in front and longer ones behind; one pair of dorso-central bristles. Scutellum with two bristles. Mesopleura with a patch of small bristles, one or two of which near the lower edge of the group are somewhat longer than the others. Abdomen entirely dull black, none of the segments noticeably lengthened. Hypopygium with an oval, downwardly projecting lobe; on the left side below with one and on the right side with two, stout downwardly directed bristles. Front tarsi enlarged; first joint widened, nearly half as broad as long, more than half as long as the tibia and about two-thirds as broad; hind tibia with a single row of very delicate setulæ inside the posterior seam. Costa three-eighths the wing length, with moderately long cilia, which are however, not equal to the distance between the costa and the third vein; first section barely more than twice the length of the second section, second section nearly half longer than the third (15 : 7 : 5); fourth vein gently and evenly curved; fifth barely sinuate, nearly straight; sixth weakly sinuate; seventh straight.

Type and one paratype from the Galog River, 5,000 ft., Oct. 21.

***Megaselia aristata* sp. nov.**

♂. Length 1.7 mm. Black, the posterior legs brownish beyond the femora and the front legs yellowish brown with the femora darker; palpi fuscous; wings distinctly yellowish, the venation light brown; halteres dark; hypopygial lamella pale yellow. Front quadrate, subshining and more coarsely hairy than usual; ocellar tubercle and median impressed line clearly marked; four postantennal bristles; the upper pair one-third longer than the lower, separated by nearly one-third the width of the front; lower pair separated by one-sixth the frontal width; antial bristles at a level midway between the upper and lower postantennals and well removed from the eye; lowest lateral bristles considerably above the level of the upper postantennals; upper frontal bristles forming a line that curves gently downward medially, its bristles equidistant; all frontal bristles large and strong. Antennae small, with conspicuously pubescent arista; palpi with strong bristles below on apical half; proboscis projecting nearly to the tips of the palpi, flat below and deeply cleft medially. One large downwardly directed bristle on each cheek and a series of very delicate ones extending thence upward toward the antennae. Mesonotum shining, with one pair of widely separated dorsocentral bristles and about six much smaller bristles between them; scutellum semicircular, with four bristles of which the lateral ones are not much smaller than the others. None of the abdominal tergites noticeably lengthened, the second apically at the sides with a group of bristly hairs; posterior edges of tergites with a series of short bristly hairs, more conspicuous on the second, fourth, and especially on the more apical segments. Hypopygium small, without conspicuous appendages below, velvety pubescent, except on lower surface which is shining. Mesopleura above with a small patch of minute bristly hairs, two or three of which are noticeably longer near the lower, hind margin of the group. Front tarsi not at all thickened. Hind tibiae with a single series of bristles just inside the seam, these are longest just beyond the middle, where they become about as long as the width of the tibia; about five short transverse rows of comb-like bristles inwardly at the apex of the tibia. Wings long and narrow; costa four-sevenths the length of the wing, its bristles long, about equalling the distance between the costa and third vein and rather closely placed, second section of costa as long as the first and third combined and nearly four times as long as the third (14 : 19 : 5); fourth vein evenly curved, with the base strongly recurved; fifth vein nearly straight; sixth feebly sinuate; seventh long, straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 9, 1930 (C. F. Clagg); one paratype from the Sibulan River (7-8,000 ft.), Sept. 28 and another from the Galog River (5,000 ft.), Nov. 5.

***Megaselia apoënsis* sp. nov. (Fig. 12)**

♂. Length 2.0 mm. Black; pleuræ piceous; hind legs very dark brown; middle tibiae and front legs yellowish brown; palpi pale yellow; halteres brown; wings yellowish hyaline, venation dark brown; hypopygial lamella piceous, pale brown at tip. Front subshining, quadrate, with well defined ocellar tubercle and median frontal groove; four postantennal bristles, the upper ones considerably larger than the

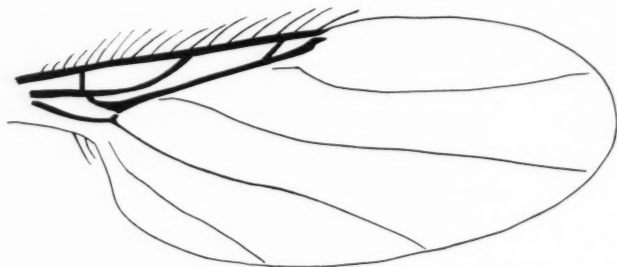


FIGURE 12. *Megaselia apoënsis* sp. nov., wing.

lower ones, separated by about one-fourth the width of the front; lower ones separated by one-sixth the frontal width; antial bristles close to the lowest laterals and a little below them, both set between the level of the two pairs of postantennals; upper frontal row of four equidistant bristles forming a line that curves downward slightly at the middle. Antennæ of moderate size, with thinly pubescent arista; palpi with moderately long bristles on apical half below. Cheeks each with two very long, divergent bristles below and a series of short, thin bristles extending upwards toward the antennæ. Mesonotum subshining, with one pair of very long dorsocentral bristles. Scutellum subtriangular, with one pair of long bristles and a minute one lateral to each of the large ones. Mesopleura with several small bristly hairs above along the hind margin, but in front of these the area that is usually hairy bears smaller and sometimes only the most minute, barely discernible hairs. None of the abdominal tergites elongated; sides of the abdomen with scattered short, bristly hairs which extend

also across each tergite just before the hind margin, becoming longer and more conspicuous on the apical segments; sides of second segment more noticeably bristly behind. Surface of abdomen and hypopygium above dull; hypopygium globose, on the sides with a few downwardly directed stiff bristly hairs, its underside polished, bearing a small leaf-like projection in the vertical plane that extends backwards from the left side at apex. Front tarsi not noticeably thickened; hind tibiae with a single series of bristles inside the seam; these short basally, but becoming nearly as long as the width of the tibia beyond the middle. Wings rather short and broad, but of quite even width; costa extending barely beyond the middle of the wing, with long, thin, rather closely placed bristles. First section of costa as long as the second and about two and one-half times as long as the third (13 : 13 : 5); fourth vein curved at the base and straight beyond; fifth slightly curved basally; sixth feebly sinuate; seventh long, straight.

♀. This sex is essentially similar to the male, aside from sexual differences.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 14, 1930 (C. F. Clagg). In addition there are twenty-five specimens of both sexes from the Mainit River, Galog River (5,000 ft.), Sibulan River (7-8,000 ft.), Baroring River (6,000 ft.) and from Calian, Davao Province. This is evidently a very common species.

***Megaselia textilis* sp. nov.**

♂. Length 1.7 mm. Thorax brown, abdomen black; four anterior legs pale yellowish brown, the hind legs deeper brown; front black, antennae fuscous, palpi deep yellow; hypopygial lamella yellowish. Wings almost hyaline, with brown venation; halteres pale brown. Front quadrate, ocellar tubercle well developed, but the median frontal line very weak; surface subshining, with sparse short hairs. Four postantennal bristles of equal size, the upper pair separated by one-third the width of the front, the lower ones by one-sixth; antial bristles set between the level of the upper and lower postantennals, well away from the eye and not far below the lowest lateral bristle; row of four equidistant preocellar bristles forming a strongly downwardly curved line; all frontal bristles large and strong. Antennae of moderate size, with strongly pubescent arista. Palpi with moderately stout bristles apically. Cheeks each with two stout downwardly directed bristles and a series of several smaller ones extending upwards toward the antenna. Posterior edge of propleura strongly bristled above and below along posterior edge. Mesonotum subshining, with

fine hairy covering; one pair of rather small dorsocentral bristles. Scutellum subtriangular, acutely rounded behind, with one pair of strong bristles and a weak hair at each lateral angle. Abdominal tergites of about equal length, the second slightly longer and without noticeable bristly hairs at the sides. Hypopygium very small, more or less globose, without evident projections, the lamella slender, cylindrical. Wings long, more narrowed apically than usual. Costa three-sevenths the wing length (32 : 77); first section nearly twice as long as the second which is nearly twice as long as the third (15 : 9 : 5). Costal bristles very long and sparsely placed; fourth vein weakly and evenly curved; fifth feebly sinuate, sixth and seventh distinctly so. Legs slender, but with the front tarsi noticeably stouter than those of the other legs; hind tibiae with a single row of very weak setae just inside the seam and four transverse rows of comb-like bristles internally at the tip.

Type from the Mainit River (5,500 ft.), Mt. Apo, Mindanao, Philippines.

***Megaselia turbulenta* sp. nov.**

♂. Length 1.0 mm. Black, the mesonotum piceous and the pleurae red-brown; legs dilute brownish yellow, the tips of the hind femora infuscated; palpi clear yellow; wings hyaline, the veins rather weak brown; halteres black. Front about as wide as high, with ocellar tubercle and well defined median impressed line, its surface more or less shining, but distinctly pollinose and with very fine, scattered hairs. Frontal bristles moderately strong; four postantennal bristles placed in a close group, the upper ones separated by about one-fourth the width of the front; antial bristles near the lower edge of the front well removed from the eye and unusually far below the lowest laterals; preocellar bristles four equidistant, forming a nearly straight transverse row more than twice as far from the postantennals as from the ocellar bristles. Antennae and palpi small, the latter with moderately strong bristles below and near the tip. Mesonotum rather shining, strongly convex anteriorly, with comparatively strong hairs behind; one pair of weak dorsocentral bristles and two strong scutellar bristles; bristles along the lateral edges of the mesonotum strong. Mesopleura above with a patch of scattered bristly hairs and one longer, backwardly directed bristle near the lower posterior edge of the patch. Abdomen dull black, the tergites of approximately equal length; hypopygium globose, of moderate size. Front tarsi flattened and widened, the first joint half as long and nearly as wide as the tibia, following joints about twice as long as wide; hind tibiae with a single

series of weak bristles, obsolete basally and apically, inside the seam. Costa much less than one-half the length of the wing (87 : 33), its bristles moderately long and rather closely placed; first section almost twice as long as the second which is less than twice as long as the third (15 : 8 : 5); fourth vein long, very weakly curved; fifth, sixth and seventh sinuate.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines (C. F. Clagg).

This is very similar to *M. breviscula* Brues from Formosa with which it agrees in the small size and very short costa. However, the upper postantennal bristles are much more approximate and the costal bristles shorter in the Philippine species.

***Megaselia repetenda* sp. nov. (Fig. 13)**

♂. Length 2-2.2 mm. Thorax above rather dark brown, yellowish about the humeri and very pale brownish yellow on the pleurae; head, including front yellow, the antennae and palpi scarcely paler; abdomen black, the second tergite medially, all of the fifth and seventh, pale yellow; legs pale brownish yellow, the hind tibiae black internally at apex; wings hyaline, with a brown tinge, the veins dark brown;

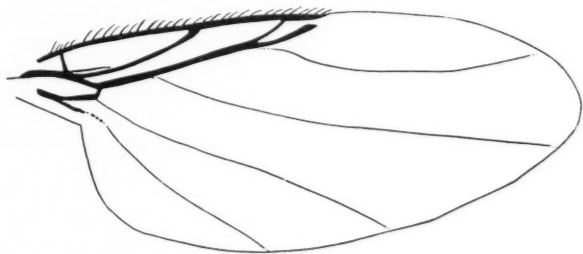


FIGURE 13. *Megaselia repetenda* sp. nov., wing.

halteres yellow, with dark stalk. Front quadrate, the ocellar tubercle and median impressed line well marked; four large, strong, equal postantennal bristles, the upper pair separated by one-half the width of the front and the lower ones by half that distance; antial bristles directly beneath the lowest lateral bristles and as close to the eye and well below the upper postantennals; lowest lateral bristle high on the front, almost as far from the antial bristle as from the lateral bristle of the preocellar row; middle pair of preocellar bristles much lower

than the lateral ones, almost as near to the level of the lowest lateral bristle as to the lateral bristle of the preocellar row. Antennae slightly, but very distinctly enlarged, with long, densely pubescent arista; palpi of normal size, with small bristles below and several much longer ones near apex. Cheek with two very stout bristles below and a series of smaller, thinner ones extending up toward the antenna. Mesonotum not very broad, distinctly shining, densely clothed with hairs that become longer behind and are bristle like between the single pair of dorsocentral bristles. One pair of very strong scutellar bristles in addition to a smaller middle pair and a much smaller lateral one. Mesopleura entirely bare. Abdomen with opaque surface; none of the tergites noticeably lengthened; the second with a conspicuous tuft of bristles at each side. Hypopygium small; with an incurved finger-like process below at the left, fringed at tip with thin curved bristles; its lamella stout at the tip, with a pair of pointed, blade-like bristles. Legs slender, including the front tarsi; hind tibiae with two series of bristles; one inside the seam, of bristles nearly as long as the width of the tibia, and one outside the seam, of very short bristles that do not extend to the tip of the tibia; inner surface of tibia at tip with four distinct transverse rows of comb-like bristles. Costa extending beyond the middle of the wing (95 : 55) its bristles very minute and closely placed; first section distinctly longer than the second which is nearly three times as long as the third (23 : 18 : 7); fork of third vein very acute, the second vein curved upwards to the costa; fourth vein more distinctly curved on basal half; fifth and seventh slightly arcuate; sixth feebly sinuate.

♀. Differs in having the antennae decidedly smaller, of the usual size. As in the male, the fifth tergite is pale yellow.

Type from the Mainit River (5,500 ft.), Mt. Apo, Mindanao, Philippines, September 14, 1930; four ♂ paratypes, two of same date and locality as the type, one from the Sibulan River (7,000 ft.) Sept. 11 and the fourth from the Kidapawan Trail, Cotabato Province (7-8,000 ft.) Sept. 20. The female is from the Lalun Mountains (5,500 ft.), December 31, 1930.

All the specimens agree closely in color and exactly in the bristling of the scutellum.

***Megaselia calianensis* sp. nov. (Fig. 14)**

♂. Length 2-2.5 mm. Thorax red brown; front somewhat blackened especially above, abdomen black, with a pale yellow, narrow apical band on tergites two to six; pleurae light brown; antennae dull

fulvous, palpi light yellow; legs testaceous, the hind femora black at tips, wings hyaline, with faint brown tinge, veins dark; knob of halteres pale yellowish. Front quadrate, with large bristles; ocellar tubercle and median groove present; four equal, stout postantennal bristles, the upper pair separated by fully one-half the width of the front; lower pair by nearly one-third its width; antial bristles almost as near to the eye as the lowest lateral bristle, on a level with the lower postantennals; lowest lateral bristle far above the upper postantennals; median pair of bristles of preocellar row set much lower than the lateral ones, almost as far below them as above the lowest lateral bristle. Antennae small, rounded. Palpi small, with stout bristles, especially near tips. Three very long, downwardly curved bristles on

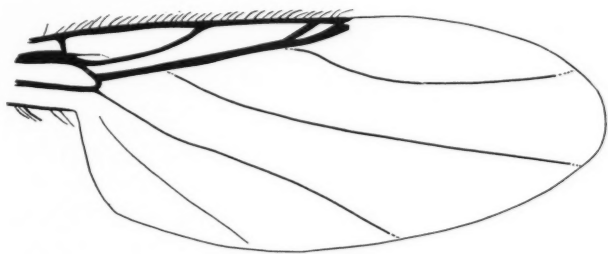


FIGURE 14. *Megaselia calianensis* sp. nov., wing.

each cheek, with several shorter ones above, extending in a line toward the antenna. Mesonotum rather long, subshining, its pilosity noticeably longer behind; one pair of dorsocentral bristles. Scutellum fully twice as wide as long, with four long, equally stout, equidistant bristles along the margin. None of the abdominal tergites noticeably lengthened; surface opaque and bare except for a submarginal row of bristly hairs on each tergite (longer on the sixth) and a conspicuous tuft of bristles near each hind corner of the second tergite. Hypopygium with a finger-like projection on each side, directed obliquely downward, about the width of the lamella (anal tube) and furnished with scattered stiff hairs below and apically. Mesopleura entirely bare. Legs moderately stout, the tarsi all slender. Hind tibia with a series of rather long bristles inside the seam and a series of very small ones outside the seam, this outer row more or less obsolete on the basal and apical third of the tibia. Costa extending beyond the middle of the wing (5 : 9), with very short, closely placed bristles; first section

one-third longer than the second which is about twice the length of the third (24 : 20 : 8); fourth vein curved mainly at the base; fifth, sixth and seventh nearly straight.

Type from Calian, Davao Province, Mindanao, Philippines, January 1, 1931 (C. F. Clagg); paratype ♂ from the Mainit River (5,500 ft.), September 14, 1930.

Female. Length 3-3.5 mm. Similar to the male, with the costal sections 35 : 31 : 10. Two specimens from Mt. Mayo, Davao Province (4-5,000 ft.), Jan. 30, 1931 and the Galog River (5,000 ft.), Sept. 8 (C. F. Clagg).

This species seems to be unusually variable in wing venation and on the other hand very close to the following species. After thorough examination, I think, however, that the specimens are properly segregated.

***Megaselia equivocata* sp. nov.**

♂. Length 2.2 mm. Thorax brown, the humeri yellowish and the pleurae reddish below; front reddish brown, darker above, antennae dark brown; palpi saturate yellow; abdomen entirely black; legs yellow testaceous, the hind femora tipped with black; wings with yellowish brown cast, the veins dark; halteres dark brown, with black tips. Front slightly wider than long, with prominent ocellar tubercle and distinct median line, its bristles long and stout; four equal post-antennal bristles, the upper pair separated by nearly half the width of the front, lower pair by one-fourth; antial bristles at the level of the lower postantennals, much farther from the eye than the lowest lateral bristle which is slightly above the upper postantennals and twice as far from the bristle above it as from the antial; middle pair of pre-ocellar bristles set much lower than the lateral ones. Antennae not enlarged, with long, thin arista; palpi with stout bristles; cheeks each with three long downwardly directed bristles and a series of long, thin ones extending upwards to the antenna. Mesonotum rather broad, with strong hairs behind between the dorsocentral bristles; scutellum twice as wide as long, with four bristles, the median ones much closer to one another than to the lateral ones. Abdomen with the second tergite noticeably longer than the others, with a small tuft of bristles at each side; other tergites with a marginal series of minute bristly hairs along posterior edge and some larger ones along the lateral margins. Hypopygium on each side below with a short horizontal lobe extending backwards, fringed apically with curved bristly hairs. Mesopleura entirely bare. Legs moderately stout, the hind tibiae with two rows of bristles, one of larger ones inside the seam and a second

one (incomplete basally and apically) outside the seam, composed of much shorter bristles. Costa extending slightly beyond the middle of the wing (100 : 55) with very short, closely placed bristles; first section one-half longer than the second, third less than half as long as the second (26 : 17 : 7); fourth vein curved near base, nearly straight apically; fifth, sixth and seventh nearly straight.

Type from the Sibulan River (2,000 ft.), Mt. Apo, Mindanao, Philippines, October 1, 1930 (C. F. Clagg).

This may be only a variety of the preceding species, but it seems to be clearly distinct so far as I can tell from the material at hand.

***Megaselia bulbosa* sp. nov.**

♂. Length 3.0 mm. Yellowish brown, the pleurae very much paler, especially below; abdomen black or very dark brown, with the posterior margins of the tergites dull yellow; legs yellow, with the tips of the hind femora black; front brownish yellow, the antennae and palpi pale fulvous. Wings with a distinct yellowish brown cast, darker around the edges; the veins fuscous; halteres dark brown. A slender species with long wings and legs. Front fully one-fourth wider than long, its bristles strong; lower postantennal bristles minute, separated by one-fifth the width of the front, upper ones large, separated by one-third the width of the front; antial bristles well below the upper postantennals and much nearer to them than to the eye; lowest frontal bristle close to the eye and a little above the postantennals; preocellar row of four equidistant bristles, bowed downwards medially; ocelli large, the tubercle occupying one-half the width of the vertex; antennae distinctly enlarged, the arista stout, pubescent; palpi slender, narrowed apically, with moderately stout bristles at tip. Cheek with two stout downwardly curved bristles and a series of about six slender ones extending in a line toward the antenna. Postocular cilia large. Mesonotum shining, with five unusually stout bristles along each lateral margin; one pair of dorsocentral bristles. Scutellum small, with two strong bristles and a pair of lateral bristly hairs. Mesopleura entirely bare. Abdomen long and slender, the segments of about equal length; each tergite with a subapical fringe of bristly hairs; the second with a conspicuous tuft of bristly hairs at each side. Hypopygium conspicuous, globose, with a triangular, subapical projection below. Legs long and slender; hind tibiae with a series of widely spaced long bristles inside the seam and a second series of shorter, much more closely spaced ones outside the seam, the seam deflected toward the outside beyond the posterior third. Wings long and narrow, the costa

extending two-thirds the wing length (75 : 115); costal bristles very short, closely placed; second section of costa one-third longer than the first and six times as long as the third (27 : 36 : 6); cell at fork of third vein very small, but well defined as the second vein rises sharply toward the costa. Fourth vein straight, except at base; fifth slightly bent at the middle; sixth and seventh feebly sinuate.

Type from Calian, Davao Province, Mindanao, Philippines, January 1 (C. F. Clagg).

This species is very readily recognizable by the broad front, wing venation and armature of the hind tibiae.

***Megaselia dimidiata* sp. nov.**

♂. Length 1.4 mm. Black; antennae fuscous, paler below; palpi yellow; front legs, except upper side of femora brownish yellow; middle legs beyond femora, and hind tarsi yellowish brown; hypopygial lamella pale yellow; halteres black; wings slightly infuscated, the venation dark brown. Front shining, with sparse, strong hairs, slightly higher than broad, with prominent ocellar tubercle and very weak median impressed line. Only two postantennal bristles, separated by one-third the width of the front; antial bristles slightly below the lowest lateral bristles and almost touching them, the lateral bristles at the level of the postantennals; preantennal bristles equidistant, all four in a straight transverse line. Antennae small, with a short, stout arista; palpi below and at tip with widely separated, moderately strong bristles. Mesonotum subshining, finely hairy, with one pair of dorsocentral bristles. Scutellum large, semicircular, with two long, stout bristles. Mesopleura entirely bare although its surface above is noticeably pruinose. Abdomen short and stout, dull black, bare except for sparse bristly hairs laterally and toward the tip; second segment slightly longer than the third; fifth as long as the fourth. Hypopygium bent forward under the abdomen, concealed. Front tarsi slightly, but not conspicuously thickened; hind tibiae with two series of bristles, those inside the seam long and widely separated, those outside the seam much shorter and becoming very weak on the apical third; seam straight, not angulate apically. Costa extending just to the middle of the wing, with very short, fine bristles. First section of costa about one-third longer than the second which is more than twice as long as the third (13 : 10 : 4). Cell at fork of third vein rather narrow, as the second vein is strongly oblique; fourth vein bent at base and less strongly so apically; fifth and sixth feebly sinuous; seventh long, nearly straight.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 21, 1930 (C. F. Clagg).

***Megaselia quadrata* sp. nov.**

♀. Length 2 mm. Thorax brownish yellow, the front black; antennae, palpi and abdomen clear yellow, the latter with tergites one, three, four and five blackened except in the middle of three to five and with the extreme tip black; legs yellowish testaceous; wings hyaline, with fuscous venation; halteres black. Front quadrate, ocellar tubercle and median impressed line sharply defined; two large and two very small postantennal bristles, the former separated by a little less than one-third the width of the front; antial bristles below the lowest lateral bristles on a level with the upper postantennals and almost as near to them as to the eye; four preocellar bristles equidistant, but with the median pair decidedly lower than the lateral bristles. Each cheek with two large downwardly directed bristles and a series of seven small ones extending upwards to the antenna. Antennae small, rounded; palpi small, with stout, widely separated bristles below. Mesonotum subshining, densely, finely hairy in front, sparsely and more coarsely so behind; one pair of rather small dorsocentral bristles; scutellum with two bristles and two bristly hairs lateral to the bristles. Mesopleura entirely bare above. Abdomen broad at base, evenly narrowed apically; all six tergites fully sclerotized, the second one-third longer than each of the following ones; surface dull, with scattered, conspicuous, black, bristly hairs on the posterior half of the second and all of the following tergites. Hind tibiae with straight hair-seam, with two rows of bristles, those in the series external to the seam stout, nearly as long as the width of the tibia; those of the outer row much shorter and very closely placed. Wings narrow, the costa extending very slightly beyond the middle of the wing (77 : 40) costal bristles very short and closely placed; first section of costa slightly longer than the second which is three times the length of the third (17 : 15 : 5); fourth vein curved at base and apex, nearly straight near the middle; fifth faintly sinuous, sixth distinctly so; seventh straight.

Type from Todaya Plateau (4,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 2, 1930 (C. F. Clagg).

***Megaselia maculipennis* sp. nov. (Fig. 15)**

♀. Length 2.2 mm. Head and thorax pale dull yellow, the mesonotum darkened medially and at the sides; pleurae stained with brown below; abdomen black at base, the second tergite fulvous, tergites

3-5 pale yellow, sixth bright yellow with a small round black spot at each side behind, seventh black; legs brownish yellow, the hind femora blackened at tips; wings distinctly tinged with yellowish, the veins pale brown; a distinct brown spot filling the cell at the fork of the third vein and extending slightly beyond, above the base of the fourth vein. Front slightly wider than high; ocellar tubercle and median impressed line distinct; two strong postantennal bristles, separated by one-fourth the width of the front, and a very small lower pair; antial bristles midway between the median line and the eye, at the level of the upper postantennals; lowest lateral bristle farther from the eye than usual and well above the antial bristles; four equidistant pre-ocellar bristles forming a line that is slightly curved downwards

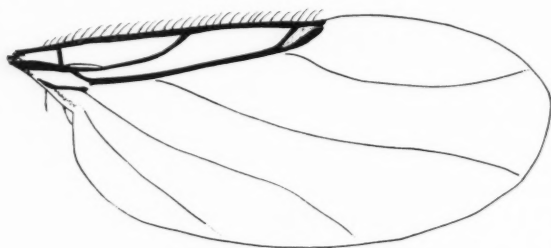


FIGURE 15. *Megaselia maculipennis* sp. nov., wing.

medially. Antennae small, rounded, with strongly pubescent arista; palpi small, with moderately strong, widely divergent bristles on apical half below; each cheek with two strong downwardly directed bristles and a series of small ones extending upwards toward the antenna. Mesonotum subshining, with two dorsocentral bristles and a rather conspicuous pair of smaller bristles between the dorsocentrals. Scutellum, twice as broad as long, with four bristles, the middle pair much stronger than the lateral one. Abdomen partly membranous at the sides, the fourth and fifth tergites much reduced in width, each scarcely wider than and somewhat shorter than the sixth; third tergite apparently entirely membranous; second tergite with very conspicuous bristles along the lateral edges; fourth and fifth with minute bristles at tip, sixth segment with a fringe of longer bristles at apex; seventh segment tubular, clothed with sparse, rather long, bristly hairs. Mesopleura entirely bare above. Hind tibiae with a single series of bristles inside the seam, these are longest near the middle of

the tibia and nowhere as long as the width of the tibia. Costa extending well beyond the middle of the wing (49 : 85), its bristles very short and closely placed; first section distinctly longer than the second which is slightly more than three times the length of the third (19 : 17 : 5); fork of third vein acute, the cell elongate triangular; fourth vein evenly curved, except for the briefly recurved base; fifth and sixth strongly sinuate; seventh weak, feebly sinuate.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, November 5, 1930 (C. F. Clagg); paratype from Lalun Mts. (5,500 ft.), Davao Province, Mindanao, Philippines, July 3 (C. F. Clagg).

***Megaselia brevisecta* sp. nov. (Fig. 16)**

♀. Length 2.0 mm. Thorax above light brown; front and pleurae brownish yellow, abdomen black; legs testaceous, the tips of hind femora blackened; antennae pale brown, darker at tips; palpi pale brown. Wings distinctly brownish, the veins fuscous; halteres black. Front quadrate, with distinct ocellar tubercle and median impressed line. Lower pair of postantennal bristles very small and slender,

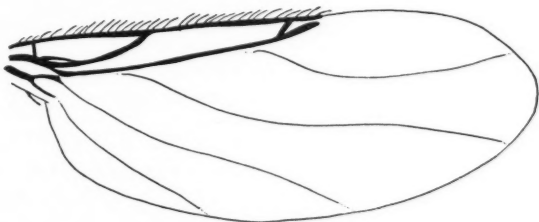


FIGURE 16. *Megaselia brevisecta* sp. nov., wing.

upper pair large and stout, separated by nearly one-third the width of the front; antial bristles near the lower margin of the front, at the level of the upper postantennals, almost as far from the eye as from the median line; preocellar row of four equidistant bristles forming a straight, transverse line at the upper third of the front. Antennae small, with strongly pubescent arista; palpi with moderately long bristles at tips. Mesonotum elongate, its surface subshining; one pair of dorsocentral bristles; bristles along lateral margin unusually large; scutellum twice as wide as long, with two very long and two small bristles. Mesopleura entirely bare above. Abdominal tergites all of

approximately equal length, the apical ones with noticeable scattered bristly hairs; second tergite with a conspicuous band of small bristles along the lateral margin. Legs slender, the hind tibiae with a single row of widely spaced bristles inside the seam; these much shorter than the width of the tibia. Costa extending well beyond the middle of the wing (87 : 52), with short, very densely placed bristles; first section barely more than half as long as the second; third less than one-fourth as long as the second (12 : 23 : 5); fork of third vein not very acute, the second vein rising sharply to the costa and the cell nearly an isosceles triangle; fourth vein more strongly curved at the base; fifth and sixth strongly sinuate; seventh feebly so.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 6, 1930 (C. F. Clagg).

***Megaselia lino nsis* sp. nov.**

♀. Length 2.4 mm. Head and thorax piceous, the humeri and sides of the mesonotum rufous; abdomen black; antennae piceous, much paler reddish internally at base; palpi clear yellow; abdomen black; legs brownish yellow, the hind pair darker, with nearly black femora. Wings slightly brownish, with brown veins; halteres yellowish white. Front two-fifths wider than long with broad flat ocellar tubercle and distinct median impressed line; surface pollinose; four postantennal bristles, the lower pair much thinner and considerably shorter than the upper, and not much closer together; the upper ones separated by one-fifth the width of the front; antial bristles on a level with the lower postantennals, midway between the median line and the eye; lowest lateral bristles at the level of the upper postantennals and farther from the eye than usual; preocellar row of four equidistant, forming a downwardly bowed line, nearer to the postocellar row than to the postantennals; all frontal bristles large and strong. Antennae small, with loosely pubescent arista; palpi narrow, with moderately long bristles. Mesonotum broad, shining, sparsely hairy, especially behind; one pair of long dorsocentral bristles; the bristles of the lateral margin large. Scutellum one-half broader than long, with four long, stout, equal bristles. Mesopleura entirely bare above, although the surface near the base of the wing is slightly wrinkled in an oblique direction. Abdomen stout, the tergites of approximately equal length, with a few scattered minute bristly hairs, more conspicuous laterally and at the tip of the abdomen; five fully sclerotized tergites, the sixth segment small, narrow, tubular; each side of second tergite with a linear series of about five long, conspicuous bristles. Legs rather slender in

comparison to the quite stout body; hind tibiae with a single series of bristles inside the seam, these are short near its base and apex, but attain a length equal to the width of the tibia near the middle. Costa extending well beyond the middle of the wing (102 : 62), with moderately short, rather closely placed bristles; second section of costa about one-third longer than the first and nearly five times as long as the third (22 : 29 : 6); fork of third vein very acute, the second vein much longer than the third section of the costa; fourth vein strongly curved at the base, practically straight beyond; fifth feebly curved before middle; sixth slightly sinuous; seventh long, curved, sinuous toward the tip.

♂. A much smaller specimen may be the male of this species but the second section of the costa is longer (14 : 20 : 5) and the front not quite so wide. The antennae are conspicuously enlarged.

Type from Lino Lake (8,000 ft.), Mt. Apo, Mindanao, Philippines, September 19, 1930 (C. F. Clagg). Male from the Galog River (5,000 ft.), September 22, 1930.

***Megaselia setifrons* sp. nov.**

♂. Length 2.2 mm. Mesonotum and front reddish brown, the ocellar region black; humeri, front margin of mesonotum, pleurae, metanotum and base of first abdominal tergite pale yellow; abdomen otherwise black, with the posterior edge of each tergite broadly margined with yellow; antennae light orange-yellow; palpi fulvous; legs testaceous, the hind femora blackened at tips; wings hyaline, with very dark veins; halteres black. Front quadrate, with large, elevated ocellar tubercle which occupies fully half the width of the front and deep median frontal groove; four large, equal postantennal bristles, the lower pair separated by a little less than, and the upper by a little more than one-third the width of the front; antial bristles between the level of the upper and lower postantennals, close to the eye although not so near as the lowest lateral bristles which are far above them, directed obliquely inwards; four equidistant preocular bristles of which the middle pair is much lower than the lateral one. Surface of front glaucous or pruinose, the sparse hairs between the bristles larger than usual, especially in the region of the postantennal bristles. Antennae noticeably enlarged, rounded, with long, thinly pubescent arista. Palpi small, with long bristles below on apical half. Cheek with two large, downwardly curved bristles which are scarcely larger than the lower ones of a gradually decreasing series that extends upward to each antenna. A large, fleshy proboscis extending between

the palpi causes them to be more widely separated than is usual. Mesonotum broad and short, with one pair of very widely separated dorsocentral bristles; scutellum fully twice as wide as long, with four strong marginal bristles. Mesopleura entirely bare above. Abdomen broad at base, but rapidly narrowed behind the second segment, its surface semi-opaque, clothed with sparse bristly hairs that are longest on each tergite just before the yellow apical band; second tergite longest, but not noticeably elongated, without trace of lateral bristles. Hypopygium nearly symmetrical, large, pear-shaped when seen from above; its lamella yellow, clothed with bristly hairs; seen from the side the hypopygium is triangularly produced at the lower corner behind to form a blunt tooth; this and the posterior edge are clothed with thin curved bristles. Legs slender, hind tibiae with a single series of bristles inside the seam, these increasing evenly in length from the base of the tibia, but never attaining a length equal to the tibial width. Wings broad at the middle, obtusely narrowed apically; costa extending well beyond the middle of the wing (85 : 50), its bristles short and closely placed, first section of costa about one-third longer than the second which is twice as long as the third (23 : 17 : 8); third vein slightly, but very distinctly widened along its middle third; fork of third vein very acute; costa extending for a noticeable distance beyond the tip of the third vein; mediastinal vein entirely lacking when the wing is viewed from above, weakly indicated when seen obliquely from the front; fourth vein curved at base, straight beyond; fifth straight; sixth and seventh feebly sinuate.

Type from the Sibulan River (7-8,000 ft.), Mt. Apo, Mindanao, Philippines, September 21, 1930 (C. F. Clagg).

The obsolescence of the mediastinal vein is nearly complete, but the species does not otherwise agree with related genera that lack this vein and I have therefore placed it in *Megaselia*.

***Megaselia tubulata* sp. nov.**

♀. Length 2.1 mm., including the tubular ovipositor. Brownish yellow, the abdomen black and the front black, except below and on the lower portion of the sides; antennae and palpi pale orange-yellow; legs pale yellow; wings hyaline with brownish tinge, the veins brown; halteres pale. Front about one and one-half times as broad as high, with broad ocellar tubercle and deeply impressed median line; four postantennal bristles, but the lower pair minute, very much smaller than the upper ones which are close together, separated by scarcely one-sixth the width of the front; antial bristles level with, or slightly

below the lower postantennals, slightly nearer to the eye than to the upper postantennals; lowest lateral bristles but little above the antials, further from them than from the eye; pro-ocellars equidistant, forming a slightly arcuate line; all bristles large and stout. Antennae oval, distinctly larger than is usual; palpi of normal size, with stout bristles below toward tips; four long downwardly directed bristles at the lower corner of the eye and two small ones above, nearer to the antenna. Mesonotum rather broad, subshining, its pubescence very fine, except behind; one pair of dorsocentral bristles placed very wide apart; scutellum broad, fully twice as wide as long, with four large and equal bristles. Mesopleura entirely without hairs or bristles above. Abdomen broad at the base and evenly narrowed to the sixth tergite; none of the tergites noticeably elongated; second with a tuft of small bristles at each side; ovipositor extruded for a distance equal to the length of the second and third tergites together; it is considerably depressed, with flat upper surface and apparently composed of two segments of which the basal is three times as long as the apical one; the width of the base is fully twice that of the apex and equal to one-third the total length; the extreme tip is somewhat swollen and bears some very minute bristly hairs. Legs rather slender; hind tibiae with a single row of short, fine, closely placed bristles inside the seam. Costa extending almost to the middle of the wing, with short, widely separated bristles; first section of costa nearly twice as long as the second; third less than half as long as the second (18 : 10 : 4); second section of costa noticeably bowed outward along the wing margin and the third vein beyond the fork similarly bowed, toward the base of the fourth vein; second vein also curving upwards to meet the costa; fourth vein evenly curved; fifth, sixth and seventh feebly sinuate.

♂. Length 1.6 mm. Differs from the female in having the antennae greatly enlarged, the third joint oval and slightly larger than the eye; arista short and very finely pubescent. To accommodate the greatly enlarged antennal cavities the front is greatly shortened, the costal sections are of noticeably different proportions, the second only half the length of the first and the third five-eighths the length of the second (16 : 8 : 5).

Type from Lawa, Davao Province, Mindanao, Philippines, May 4, 1930. Male from the Galog River (5,000 ft.), October 22, 1930; both specimens collected by C. F. Clagg.

Although the male differs considerably in wing venation, it agrees so closely in many characters that I feel quite positive that it is conspecific.

***Megaselia montana* sp. nov.**

♀. Length 2.1 mm. Black, the mesonotum stained with reddish brown at the posterior corners; pleuræ piceous below; front legs, including coxæ testaceous, middle and hind legs successively darker, the tips of the hind femora blackened; antennæ brown at base; palpi dark saturate yellow; halteres pale yellowish. Wings hyaline, veins dark brown. Front slightly wider than long, with well marked ocellar tubercle and median frontal groove; surface of front strongly pollinose and very sparsely clothed with minute bristly hairs; four postantennal bristles, the lower pair very small and the upper one smaller than the other frontal bristles; upper pair separated by about one-fifth the width of the front; antial bristles lower than the upper postantennals and about midway between the eye and the median line; lowest lateral bristles level with the upper postantennals; four equidistant procellar bristles forming a nearly straight line, the median pair but little lower than the lateral one. Two strong downwardly directed bristles on each cheek and a series of very short ones above extending toward the antenna. Antennæ small, rounded, with long, thinly pubescent arista; palpi stout, with moderately long, closely placed bristles. Mesonotum subshining, with one pair of widely separated dorsocentral bristles. Scutellum twice as wide as long, with four equally large, strong bristles. Abdomen pollinose above, with scattered, small bristly hairs, none of the tergites noticeably lengthened nor shortened; second tergite with a patch of small bristles at each side; six tergites completely formed. Mesopleura entirely bare above. Legs rather stout; hair seam of hind tibia distinctly, evenly arcuate, a single series of bristles inside the seam, these widely spaced and strong on the posterior third of the tibia where they are nearly as long as the width of the tibia. Costa long, extending to slightly beyond the middle of the wing, its cilia long and rather widely spaced; first section of costa one-half longer than the second which is a little more than twice as long as the third; fork of third vein acute, the third vein curved toward the costa at the tip so that the cell is very short above.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 9, 1930 (C. F. Clagg).

***Megaselia translocata* sp. nov.**

♀. Length 1.5 mm. Black, the pleuræ piceous; front and middle legs fuscous, hind legs piceous; palpi pale brown; halteres pale; wings slightly, but distinctly infuscated, the veins dark brown. Front

shining, less hairy than usual, distinctly wider than long (about 11 : 9), with long bristles, small ocellar tubercle and median frontal line well developed; four postantennal bristles, the lower pair about half the size of the upper which are separated by one-fourth the width of the front; antial bristles midway between the eye and the upper postantennals, set on a level with the lower postantennals; lowest lateral bristle slightly higher than the antial, further from the eye than usual; median pair of preocellar bristles nearer to one another than to the lateral bristles and set at a lower level, midway between the upper postantennal and ocellar bristles. Antennae small, with long, densely pubescent arista. Palpi with moderately strong bristles. Mesonotum shining, elongate and very strongly convex, with unusually large bristles on the lateral margins; one pair of dorsocentral bristles; scutellum subtriangular, its base narrower than usual, with one pair of large bristles. Mesopleura entirely bare. Legs long and quite stout, but with the hind femora not at all widened; front tarsi stout, but not really thickened nor enlarged; hind tibiae with the hair seam gently arcuate, one series of short, fine bristles outside the seam, these very weak at base and apex; inside of hind tibia with three transverse rows of comb-like bristles at apex. Abdomen subshining, all of the tergites fully sclerotized; surface clothed with sparse, minute, bristly hairs; sides of second tergite with a very inconspicuous group of small bristles. Wings long and ample, rather narrow; costal bristles moderately long, very closely placed. Costa extending somewhat beyond the middle of the wing (80 : 45), distinctly widened near the middle where it is about twice as thick as usual; very thin near the humeral cross-vein, thence widened to the tip of the first vein, thence imperceptibly reduced to its normal thickness at apex; second vein very thin, others normal; second vein rising very sharply to the costa; fourth vein moderately and evenly arcuate; fifth and sixth feebly sinuate; seventh straight.

Type from the Mainit River (5,500 ft), Mt. Apo, Mindanao, Philippines, September 14, 1930 (C. F. Clagg).

In this species the costa is very clearly, but not grossly, thickened and distinctly sinuous, with its first section curved posteriorly and its second one curved anteriorly.

***Megaselia mediata* sp. nov. (Fig. 17)**

♀. Length 1.7 mm. Head and thorax yellow, the lower part of pleurae, antennae and palpi decidedly paler; ocellar tubercle black; legs testaceous, with the tips of hind femora blackened, abdomen black, the base of the second tergite and all of the sixth yellowish; halteres

black. Front quadrate, barely wider than high, the surface pollinose, clothed with sparse minute bristly hairs, its bristles very strong; ocellar tubercle and median frontal line well developed; four post-antennal bristles, the lower pair much weaker than the upper which are separated by one-third the width of the front; antial close to the lower margin of the front, near to and just below the lowest lateral bristle which is level with the upper postantennals, middle pair of preocellar bristles nearer to one another than to the lateral pair and set considerably below them, somewhat nearer to the upper post-antennals than to the ocellar bristles. Antennae rather large, with long, densely pubescent arista; palpi with stout bristles below at apex; cheek with two strong downwardly directed bristles and a close set

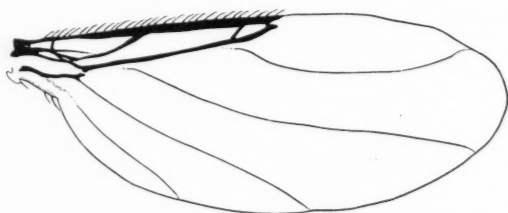


FIGURE 17. *Megaelia mediata* sp. nov., wing.

series of small, slender ones above, extending toward the antenna. Mesonotum long and narrow, strongly convex, subshining; its pubescence fine, even behind; one pair of small dorsocentral bristles. Scutellum with one pair of strong bristles, in addition to a bristly hair at each side. Mesopleura entirely bare. Abdomen with all the tergites fully sclerotized, tapering apically; surface opaque, clothed with very delicate, scattered, bristly hairs, more conspicuous near apex; second tergite slightly lengthened, one-third longer than the third, with a few weak bristles at each side. Legs slender, but with the front tarsi stouter than usual, the second and third joints each about twice as long as thick. Costa extending beyond the middle of the wing (77 : 42), its cilia extremely short and closely placed; first section distinctly shorter than the second which is three times as long as the third (15 : 18 : 6); the costa is thicker than usual from near base to apex, about twice the thickness of the third vein; fourth vein more strongly curved at base and apex; fifth considerably curved before middle; sixth and seventh feebly sinuate.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 22, 1930 (C. F. Clagg).

***Megaselia mutata* sp. nov.**

♀. Length 1.8 mm. Brownish yellow, upper half of front blackish and abdomen piceous with the hind margins of tergites two to four whitish; pleuræ and legs pale yellow, the tips of the hind femora blackened. Wings hyaline, veins very dark; halteres dark. Front quadrate, sparsely and rather coarsely hairy; ocellar tubercle and median impressed line well developed. Four postantennal bristles, the upper pair much stronger than the lower ones, separated by scarcely one-fourth the width of the front; antial bristles at the level of the upper postantennals, not much below, but much farther from the eye than the lowest lateral bristles; preocellar row of four equidistant bristles forming a gently downwardly curved line. Antennæ small, with long, thinly pubescent arista; palpi with very stout bristles on apical half below. Mesonotum elongate and narrow, its surface hairs much stronger behind; one pair of dorsocentral bristles; scutellum with one pair of long bristles and a lateral bristly hair at each side. Mesopleura entirely bare. Abdomen slender, shining, none of the tergites noticeably lengthened except the sixth, which is much narrower and about twice as long as the fifth; surface almost devoid of bristly hairs except along the lateral posterior margins of the tergites. Front tarsi moderately slender; hind tibiæ with a single series of weak bristles, obsolete basally, outside the seam. Costa extending about to the middle of the wing, very strongly arcuate with the anterior edge concave; in addition to this curvature, it is humped upward before the second vein, thus greatly deforming the form of the costal wing margin; costa thin on the basal sixth, then rapidly swollen to near middle, then gradually reduced to its normal thickness at apex; first vein very thin, entering the costa just beyond its basal third; second vein normal; third vein noticeably thickened and strongly bowed in parallel manner with the costa; fourth vein curved only near base; fifth also curved on basal half; sixth and seventh nearly straight.

Type from Calian, Davao Province, Mindanao, Philippines, January 1, 1931 (C. F. Clagg).

The form of the wing is very unusual, especially the bending of the costa in two different planes, and I suspect that the species may not be able to fly. Were it not that the two wings are exactly symmetrical one might think the twisting an individual abnormality and of course it may be such, possibly similar to certain mutations of the kind

observed in *Drosophila*. Even so, the specimen cannot be identical with either of the two more or less similar forms described on the following pages.

***Megaselia bihamulata* sp. nov. (Fig. 18)**

♀. Length 2.0 mm. Brownish yellow, the abdomen fuscous beyond the second segment; the sides of the mesonotum in front, antennæ, palpi and legs paler yellow; tips of hind femora blackened; ocellar tubercle black. Wings with a slight yellowish cast, the veins light brown; halteres very dark brown. Front quadrate, with well developed ocellar tubercle and deep median impressed line, the bristles very large and stout; surface subshining, with sparse, short, bristly hairs; four postantennal bristles, the lower pair thinner, but not much shorter than the upper ones which are separated by nearly one-third the width of the front; antial bristles set almost as high on the front

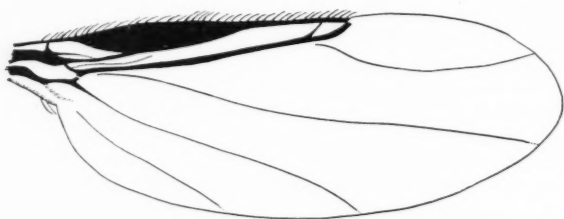


FIGURE 18. *Megaselia bihamulata* sp. nov., wing.

as the lowest lateral bristles and very close to the latter which are next to the eye-margin; preocellar bristles equidistant forming a line that is bowed down medially, the middle pair midway between the ocellar tubercle and the postantennal bristles. Antennæ small, with densely pubescent arista; palpi with weak bristles below, becoming much stronger at apex. Two very strong bristles on the cheek and a close set series of small slender ones extending up toward the antenna. Mesonotum shining, highly convex anteriorly, with one pair of rather strong dorsocentral bristles. Scutellum with two strong bristles and two minute lateral bristles. Mesopleura entirely bare. Abdomen with six complete tergites of full width and also a seventh narrow one which projects beyond the sixth; at each side of the posterior edge of the seventh there extends upwards and forwards a thin, evenly curved spine-like process, about as long as the width of the tibia; beyond this

is the usual fleshy tip and minute cerci. Front tarsi slightly thicker than usual; hind tibia with a single series of sparsely placed bristles outside the seam, the bristles considerably shorter than the width of the tibia. Wings long and narrow, the costa extending considerably beyond the middle of the wing; first section one-third as long as the second and twice as long as the third (10 : 30 : 5), its bristles very short and closely placed; costa greatly swollen from near the base to somewhat beyond the middle, its anterior margin straight, but the inner edge quite evenly bowed, the thickening ending quite suddenly near the apical third; first vein very thin; second and third normal; fourth vein slightly and evenly curved, fifth to seventh each feebly sinuate.

Type from the Mainit River (5,500 ft.), Mt. Apo, Mindanao, Philippines, September 14, 1930 (C. F. Clagg). Paratype from the Mainit River (5,000 ft.), November 5 (C. F. Clagg).

This species resembles the preceding and also the following species, but differs from each clearly as set forth in the key. These several forms are similar to some closely related European species (*e.g.*, *M. crassicosta* Strobl, *M. brunneipennis* Costa), but all differ slightly in wing venation and none so far as I know show any peculiar genital armature.

***Megaselia appendiculata* sp. nov. (Fig. 19)**

♀. Length 1.7–2.0 mm. Thorax brownish yellow; head, including antennae and palpi paler; abdomen subshining, piceous, with the base of the second tergite yellowish; legs testaceous, with the hind femora

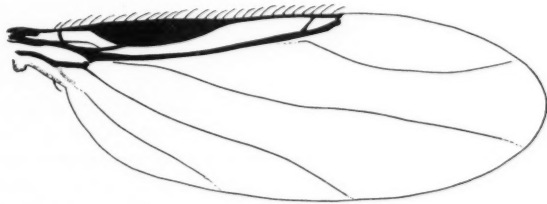


FIGURE 19. *Megaselia appendiculata* sp. nov., wing.

tipped with black; wings with yellowish tinge, the veins dark, but with the swollen part of the costa much paler; halteres black. Front and its bristles as in the preceding species, also the antennae and palpi. Mesonotum narrow, with one pair of slender dorsocentral macrochaetae; scutellum with two very strong bristles and two lateral bristly

hairs; mesopleura entirely bare. Abdomen as in the preceding species, except at apex. Seventh tergite triangular, pollinose, with a sharp, polished median ridge that extends backward as a small downwardly curved spine; lateral processes at the sides of the seventh tergite bending upwards and forwards, but sharply angulate at the middle and obliquely truncate at tip. Wings essentially as in the preceding species, but differing slightly as indicated in the accompanying figure.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, November 5, 1930 (C. F. Clagg). Four paratypes, three of same date and locality as the type and one from Calian, Davao Province January 1, 1931.

This species and the two foregoing are undoubtedly very similar and closely related. However, considering the entirely consistent differences in the seventh tergite and its appendages they are readily separable, although previous to a very minute examination I had placed them together. Still more unexpected is the fact that two of the forms were taken at Calian on the same date and likewise two on the Mainit River on the same date.

***Megaselia directa* sp. nov.**

♀. Length 1.5 mm. Pale brownish yellow; abdomen piceous, except the second tergite and membranous part of the sixth; front blackened above; ocellar tubercle black; antennae and palpi very pale; wings hyaline, with light brown veins; halteres black; legs pale testaceous, the hind femora tipped with black. Front quadrate, barely wider than high, with strong bristles. Ocellar tubercle and median impressed line present. Four postantennal bristles, the upper pair much stronger than the lower, separated by about one-fourth the width of the front; lower ones by half that distance; antial bristles directed strongly inwards, inserted at the lower margin of the front, near to and only slightly lower than the lowest lateral bristle which is very close to the eye; four equidistant preocellar bristles forming a gently down-curved line. Antennae small, with densely pubescent arista; cheeks each with two moderately strong downwardly directed bristles and a close series of very delicate ones extending upwards toward the antenna; palpi slender, with strong bristles below and at tip. Mesonotum narrow, shining, its pubescence noticeably bristly behind; one pair of dorsocentral bristles; scutellum with two bristles and a bristly hair lateral to each bristle. Abdomen with five complete tergites, the second somewhat longer than the others and with a few very small bristles at each side; sixth tergite minute, appearing only

as an elongate-oval appendage at the center of the posterior edge of the fifth, although the membranous part of the sixth segment is nearly as wide as and longer than the fifth. Mesopleura entirely bare. Legs slender; the front tarsi, however, slightly thicker than usual; hind tibiae with a series of delicate bristles outside the seam, these very short basally and two-thirds as long as the width of the tibiae on the apical half of the row. Wings long and narrow, the venation much modified; costa extending beyond the middle of the wing (64 : 37), its bristles closely placed and very minute, especially near base and apex; first section of costa only about one-fourth as long as the second (9 : 34), third section not indicated as the second vein is absent; costa thickened immediately beyond the first vein to about three times its normal width, then imperceptibly thinner to apex which is of the usual thickness; third vein approaching closely to the costa just beyond the tip of the first vein and extending thence practically in contact with the costa to tip; mediastinal vein visible as a ridge, but not clearly pigmented; fourth vein curved only at base; following veins faintly sinuate, the seventh very delicate.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 22, 1930 (C. F. Clagg).

The peculiar venation of this species is characteristic, with the parallel and closely approximate costa and third vein. The absence of the second vein is to be expected under such conditions as there is really no gap to be bridged and I can detect no indication of any thickening or closer contact near the place it should be indicated.

***Megaselia incompleta* sp. nov. (Fig. 20)**

♂. Length 1.3 mm. Black, the four posterior legs piceous; palpi, base of antennae and legs brownish yellow; anal tube pale yellow; wings hyaline; heavy veins black, light veins rather weak. Front slightly, but distinctly higher than broad; ocellar tubercle narrow; median frontal groove very sharply impressed; surface pollinose, with very sparse hairs; four postantennal bristles, the lower pair greatly reduced, half the size of the upper ones which are separated by almost one-third the width of the front; antial bristles set at the level of the upper postantennals, directed obliquely inwards and almost as near to the eye as the lowest lateral bristles which are inserted much higher on the front than the antials; preocellar bristles equidistant, forming a straight transverse line, twice as far from the postantennals as from the ocellar bristles. Antennae small, with densely pubescent arista; palpi with weak bristles below and several stronger ones at tip. Cheeks

each with two moderately long bristles below and a series of minute ones extending upwards toward the antenna. Mesonotum shining, rather broad; finely pubescent, the portion behind the base of the wings bristly; one pair of small dorsocentral bristles; two scutellar bristles, no lateral scutellar hairs. Mesopleura entirely bare. Abdomen opaque, bare on basal part, with very minute scattered hairs apically and a marginal fringe of bristly hairs on the sixth tergite; second tergite noticeably lengthened, one-half longer than the others. Legs stout for such a slender species, the front tarsi rather slender; hind tibiae with a rather strong fringe of bristles inside the seam, the longest ones about three-fourths as long as the width of the tibia.

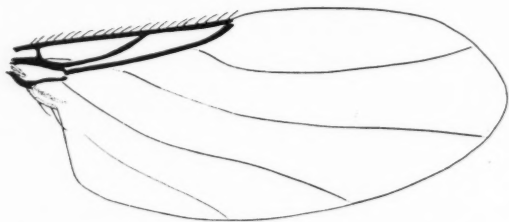


FIGURE 20. *Megaselia incompleta* sp. nov., wing.

Costa not extending to the middle of the wing (49 : 21), its bristles extremely short, closely placed. Second vein entirely absent, not indicated by the slightest trace; first section of costa as long as the second (21 : 20); fourth vein nearly straight, only weakly curved toward the base; fifth and sixth faintly sinuate; seventh barely visible.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 23, 1930 (C. F. Clagg). Two paratypes, one from the same locality, October 22 and the other from the Galog River (5,000 ft.), October 8, collected in "trap lantern."

This species is placed in *Megaselia*, as an aberrant species lacking the fork of the third vein like a very few other members of the genus. It might perhaps be referred to the closely similar *Veruanus* Schmitz known by a single species from Europe. The mediastinal vein is very weakly indicated, but this does not seem to be entirely reliable as a generic character.

***Megaselia politifrons* sp. nov. (Fig. 21)**

♀. Length 1.4–1.5 mm. Shining black, the surface polished, especially on the front and apical portion of abdomen; lower half of pleuræ, coxæ, all of four anterior legs, except front tarsi, and palpi yellowish testaceous; hind legs black or piceous, the base of the femora paler and the basal third of the tibiæ testaceous. Wings slightly infuscated, with very dark venation; halteres white. Front slightly higher than broad; ocellar tubercle small; median impressed line poorly defined below and absent above; upper half of front smooth and polished, lower half sparsely hairy, the hairs set in minute, conspicuous punctures; four postantennal bristles, the lower pair much reduced in size, the upper pair separated by almost one-third the width of the front; antial bristles set very close to and scarcely below the lowest lateral bristles at the lower corner of the front; four equi-

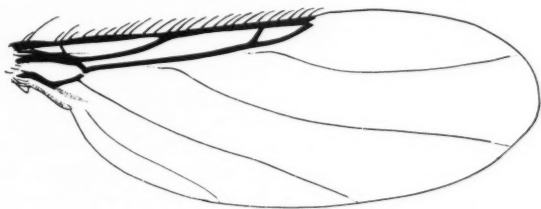


FIGURE 21. *Megaselia politifrons* sp. nov., wing.

distant preocellar bristles forming a gently downwardly curved line, the middle pair midway between the ocellars and upper postantennals. Antennæ small, with thinly pubescent arista; palpi rather broad, with moderately strong bristles. Mesonotum with one pair of unusually small dorsocentral bristles and several bristles almost as large between them. Scutellum with two rather small bristles and a lateral hair near each bristle. Pleuræ shining, the mesopleura shagreened above, but without hairs or bristles. Front tarsi rather stout. Hind tibiæ much constricted at base, of normal thickness from just before the middle, at which point the hair-seam is deflected outwards; a single series of moderately strong bristles inside the seam on the apical half, wanting basally. Abdomen slender, the tergites of approximately equal length. Wings elongate, quite narrow, the costa extending slightly beyond the middle, its bristles moderately short and rather closely placed; first section of costa slightly longer than the second which is twice as long

as the third (13 : 12 : 6); fourth vein weakly curved, fifth and sixth weakly sinuate; seventh as strong as the preceding.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 6, 1930 (C. F. Clagg); two paratypes, one from Bakranyan, 7,000 ft., September 14, and the second from the Galog River (5,000 ft.), September 8.

This species is conspicuous on account of the shining black body, resembling the widely distributed holarctic *M. minor* Zett. in this and many other characters, but differing by the small lower postantennal bristles, partially impunctate front and configuration of the hind tibiae. A single male is similar, but with the halteres and entire pleurae black.

***Megaselia bisecta* sp. nov.**

♀. Length 1.4–1.7 mm. Dull brownish yellow, darker on the middle of the mesonotum and paler on the antennae, palpi, humeri, sides of mesonotum and scutellum; abdomen blackish on apical parts of three tergites, with the base of the second tergite conspicuously pale; wings hyaline with yellowish tinge, the venation light brown; halteres pale brownish. Front quadrate, with strongly developed ocellar tubercle and well impressed median line, its bristles very long and stout; four postantennal bristles, the lower pair greatly reduced in size, upper pair separated by a little less than one-third the width of the front; antial bristles below the level of the upper postantennals, slightly lower than and twice as far from the eye as the lowest lateral bristles; preocellar bristles equidistant, forming a nearly straight transverse line, the middle pair much nearer to the postantennal than to the ocellar bristles. Antennae noticeably larger than usual, with strongly pubescent arista; palpi with strong bristles below toward tips; cheeks each with two very stout bristles below and a close-set series of shorter slender ones extending upwards toward the antenna. Mesonotum rather shining, with very fine, dense pubescence; one pair of dorsocentral bristles; scutellum with two very strong bristles, the lateral bristle-like hairs practically obsolete. Mesopleura entirely bare. Abdomen with the tergites of approximately equal length; bare above, but with fine hair-like bristles along the sides, stronger on the second tergite. Legs slender, the front tarsi not at all thickened; hind tibiae with the hair-seam curving outward beyond the middle; a single series of rather weak bristles inside the seam on the apical half of the tibia, obsolete on basal half. Costa extending to the middle of the wing, its bristles short and closely placed; first section nearly one and one-half times as long as the second; third

very short, little more than one-third the length of the second (16 : 11 : 4); fourth vein very weakly curved; fifth and sixth slightly sinuate; seventh more or less obsolete basally.

Type from La Lun Mts., Davao Province, Mindanao, Philippines (C. F. Clagg); three paratypes, two from Calian, January 1 and one from the Mainit River (5,000 ft.), Sept. 9 (C. F. Clagg).

***Megaselia unisetosa* sp. nov. (Fig. 22)**

♂. Length 1.6–1.8 mm. Black, the palpi dusky yellow and the legs brownish apically; wings slightly infuscated, the veins black; halteres pale brownish. Front slightly wider than high, strongly pollinose; very sparingly hairy, practically bare above; its bristles large and strong; ocellar tubercle small, the median impressed line showing as a fine, polished line; four postantennal bristles, the lower pair considerably reduced in size, about half as long as the upper ones which are separated by about one-fourth the width of the front; antial bristles set almost as low on the front as the lower postantennals, not

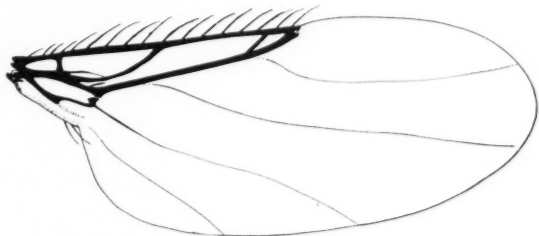


FIGURE 22. *Megaselia unisetosa* sp. nov., wing.

far below the lowest lateral bristles, but much farther from the eye; preocellar row of four equidistant bristles, the median pair scarcely below the level of the lateral ones and slightly nearer to the ocellars than to the upper postantennals. Antennae small, with short, thinly pubescent arista; palpi heavily bristled on apical half below; cheeks each with four long bristles below and a series of shorter, thin ones extending upwards to the antenna. Mesonotum short and broad, its pubescence bristly behind, between the single pair of long dorso-central bristles. Scutellum narrow, sharply rounded apically, with two long stout bristles; mesopleura entirely bare, its surface above obliquely roughened. Abdomen subshining above, with bristly hairs along the sides of the tergites, especially the second; fifth tergite with

a submarginal series of short, bristly hairs, sixth with a series of six much longer ones. Hypopygium small, simple, its dorsal lamella with scattered, rather large bristly hairs. Legs stout, the front tarsi rather thick, but not really enlarged, hind tibiae with the dorsal hair-seam strongly arcuate on basal third; one series of widely spaced bristles, nearly as long as the width of the tibia, inside the seam. Costa extending beyond the middle of the wing (55 : 35), its bristles very long and widely spaced; first section of costa a trifle shorter than the second which is nearly three times as long as the third (10 : 11 : 4); third vein with a single, quite strong bristle at base; fork of third vein acute; fourth vein weakly curved; fifth and sixth feebly sinuate, seventh nearly straight.

Type from the Mainit River (5,500 ft.), Mt. Apo, Mindanao, Philippines, September 14, 1930 (C. F. Clagg). Four paratypes, three from the same locality on the same date and one from the Galog River (5,000 ft.), September 22, 1930.

The stout bristle at the base of the third vein is an unusual character. The species is similar to the European *M. tarsella* Lundbeck and several related species, differing however in the short first section of the costa and tibial bristles. From the Formosan *M. pedicellata* Brues it differs in frontal chaetotaxy.

***Megaselia vapidicornis* sp. nov. (Fig. 23)**

♀. Length 1.6–1.8 mm. Dull ochre yellow, somewhat brighter with a fulvous cast on the abdomen; front black, the palpi and antennae, especially the latter very pale yellow; abdomen with the fourth tergite piceous and the ovipositor black; front legs very pale, hind femora tipped with black; wings hyaline, with rather pale brown venation; halteres black. Front about as wide as high, its surface pollinose, scarcely shining, with very fine sparse hairs, the bristles strong; ocellar tubercle and median frontal line sharply defined. Four postantennal bristles, the lower pair very small, less than half the size of the upper ones which are separated by about one-fourth the width of the front; antial bristles at the level of the upper postantennals, slightly below the lowest lateral bristles and much farther from the eye; preocellar row of four equidistant bristles forming a slightly downwardly curved line, the median ones midway between the ocellar and upper postantennal bristles. Cheek with two strong bristles, directed downwards and a series of unusually small ones extending upwards toward the antenna. Antennae rather large, conspicuous by their unusually pale color, the arista black, thinly

pubescent; palpi with a heavy fringe of bristles below. Mesonotum rather narrow, very strongly convex, its pubescence gradually sparser and coarser posteriorly; one pair of small dorsocentral bristles; scutellum subtriangular, with one pair of strong bristles and a bristly hair at each side. Mesopleura entirely bare and smooth above. Surface of abdomen dull, with very sparsely scattered minute hairs, longer apically; second tergite with a few bristles at each side behind; the third and fourth with similar minute bristles; six sclerotized tergites, the second longest and the sixth greatly narrowed. Ovipositor about

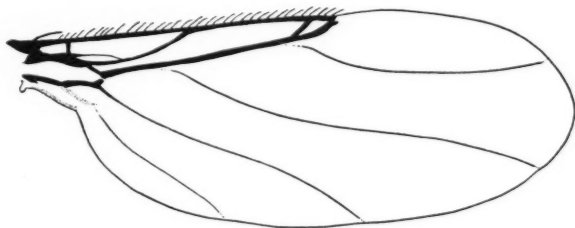


FIGURE 23. *Megaselia vapidicornis* sp. nov., wing.

as long as the second tergite and nearly half as high as long, compressed somewhat and narrowed apically in dorsal view; its surface irregularly longitudinally aciculate, clothed with sparse short hairs; no visible appendages at the apex. Legs slender, the front tarsi rather slender; hind tibiae with a moderately strong series of bristles inside the seam. Wings rather narrow basally, the costa extending slightly beyond the middle of the wing, its bristles very short and closely placed; first section shorter than the second which is nearly four times as long as the third (13 : 15 : 4); cell at fork of third vein very small; fourth vein evenly and not strongly curved; fifth and sixth feebly sinuate; seventh long.

Type from the Lalun Mountains, Davao Province, Mindanao, Philippines (5,500 ft.), December 31, 1930 (C. F. Clagg). Four paratypes; two from the Lalun Mts., July 2 and 3, and two from Calian, Jan. 1 and July 23.

***Megaselia equisecta* sp. nov. (Fig. 24)**

♀. Length 2.3 mm. Thorax brownish yellow; abdomen black; front dull yellow, infuscated above; antennae reddish brown, black at tips; palpi yellow; legs yellowish brown, the tips of the hind femora

broadly blackened. Wings tinged with brown, the veins dark brown; halteres black. Front distinctly broader than high, with extremely long bristles; ocellar tubercle small, strongly raised; median impressed line distinct. Surface of front rather shining, with closely placed black hairs. Four postantennal bristles, the lower pair very small, the upper ones separated by one-fourth the width of the front; antial bristles at the lower margin of the front, nearly as far from the eye as from the median line and a little below the postantennals; lowest lateral bristle well above the antial, not so close to the eye as usual; four preocellar bristles equidistant, the middle pair scarcely lower on the front than the lateral ones and nearer to the ocellar bristles than to the postantennals. Antennae small, with closely pubescent arista; palpi

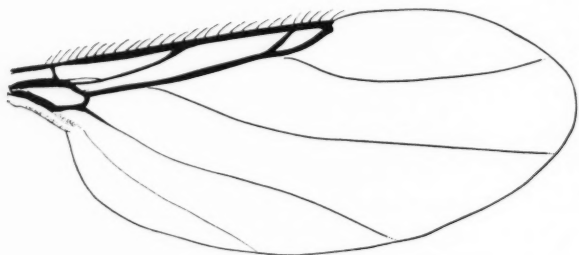


FIGURE 24. *Megaselina equisecta* sp. nov., wing.

small, with strong bristles. Cheek with two very strong downwardly directed bristles and a series of short, delicate ones extending upward to the antenna. Thorax stout, the mesonotum broad, its pubescence conspicuously bristly behind; one pair of dorsocentral bristles; scutellum transverse, semicircular, with two very long bristles, the lateral hair very minute. Mesopleura entirely bare. Abdomen stout, gradually attenuated, all of the tergites fully sclerotized, the sixth much narrowed, but fully covering the dorsal surface of the segment; second tergite with a few rather long bristles at each side behind and the margins of the tergites with minute bristly hairs along their posterior margins, not larger nor more conspicuous on the apical segments. Front tarsi slender; hind tibiae with a series of strong bristles, two-thirds as long as the width of the tibia, inside the seam. Costa extending barely beyond the middle of the wing (95 : 53), its bristles moderately long, closely placed; first section about as long as the second and three times as long as the third (21 : 20 : 7); fork of third vein very

acute, the last section of the third vein much longer than the third section of the costa, the second vein rising gently to the costa; fourth vein weakly curved at base, nearly straight beyond; fifth feebly curved; sixth feebly sinuate; seventh straight.

Type from the Sibulan River (7,000 ft.), Mt. Apo, Mindanao, Philippines, September 11 (C. F. Clagg). Paratype from the Galog River (5,000 ft.), Sept. 22.

***Megaselia clavipedella* sp. nov.**

♂. Length 1.0 mm. Shining black; antennae dark fuscous; palpi yellow; front legs pale yellow; four posterior legs piceous with the middle trochanters and tibiae pale yellow; wings slightly brownish along the light veins, venation brown. Halteres black. Front slightly higher than wide; ocellar tubercle and median frontal groove completely absent; surface highly polished, destitute of all except the most minute hairs, with scattered, very shallow punctures. Four post-antennal bristles, the lower pair noticeably smaller and very close together; upper ones very much above the lower ones and separated by one-half the width of the front; antial bristles much below the lowest laterals, not very far from the eye, the lowest laterals much higher on the front than usual; median pair of preocellar bristles set much lower than the lateral bristles. Antennae small; palpi with stout bristles. Mesonotum polished, with fine, short, silken pubescence which becomes more bristly behind; one pair of dorsocentral bristles. Scutellum large, subtriangular, with rounded apex, with two large bristles. Mesopleura without hairs or bristles above. Abdomen dull above, shining on the apical third, bare, except for sparse, minute bristles on the sides apically. Front tarsi considerably swollen, the first joint half as long and more than half as thick as the tibia, the following joints about half longer than thick; hind tibiae with a single series of rather weak bristles inside the seam. Wings with the costa extending almost to the middle, its bristles moderately long, closely placed; first section of costa about the length of the second which is more than twice the length of the third (7.5 : 7 : 3); fourth vein very weakly curved, more noticeably so near the base.

Type from the Lalun Mts., Davao Province, Mindanao, Philippines July 2, 1930 (C. F. Clagg). Paratype from the Galog River (5,500 ft.), Mt. Apo, Sept. 14.

This is an extremely small species, resembling in its shining head and thorax *M. politifrons* described on a previous page. It differs so greatly, however, in venation and frontal chaetotaxy as well as in size, that it certainly is not the opposite sex of that species.

***Megaselia barbata* sp. nov.**

♀. Length 1.9 mm. Thorax deep brownish yellow above, the pleurae darker above and lighter below; front black, its lower margin paler; antennae piceous, palpi dark yellow; abdomen piceous, the surface strongly shining; legs uniformly pale brownish yellow; wings slightly brownish, the venation dark brown; halteres black. Front fully one-half wider than high, its surface shining, with elevated ocellar tubercle and very deeply impressed median line, the minute hairs very sparse and weak, the bristles rather short. Four post-antennal bristles, the lower pair slightly reduced in size, but not much smaller than the upper which are separated by scarcely more than one-sixth the width of the front; antial bristles below the level of the upper postantennals, slightly farther from them than from the eye, distinctly below the lowest lateral bristles which are close to the eye; preocellar bristles equidistant from one another, the median pair only slightly lower than the lateral ones, placed midway between the upper postantennals and the ocellar bristles. Antennae moderately large, with long arista; palpi with long, but rather slender bristles. Cheek with three or four long downwardly directed bristles that gradually pass into a short slender series that extends upward toward the antenna. Mesonotum short and broad, shining, its pubescence slightly bristly behind; one pair of delicate dorsocentral bristles; scutellum subtriangular, acutely rounded behind, with two long, slender bristles and a very minute bristly hair at each lateral angle. All abdominal tergites fully sclerotized, the surface bare, except for weak lateral and marginal bristly hairs on the first four tergites; fifth tergite large, semicircularly rounded at apex, with a fringe of rather long bristles on the middle part of the hind margin; sixth tergite very small, more weakly bristled. Mesopleura entirely bare. Front tarsi very slender; hind tibiae rather stout, but with a series of extremely short bristles inside the seam; although so short, these bristles are stout, not hair-like. Costa extending slightly beyond the middle of the wing, its bristles moderately long and closely placed; first section of costa as long as the two others together; second nearly twice as long as the third (39 : 25 : 15); space between costa and third vein unusually broad; fourth vein more strongly curved at base; fifth strongly sinuate; sixth less so; seventh nearly straight.

Type from the Lalun Mts. (5,500 ft.), Davao Province, Mindanao, Philippines, Jan. 3, 1931 (C. F. Clagg).

This species may possibly be the female of *M. extensifrons* sp. nov. which it resembles especially in the wide front. However, the frontal

chaetotaxy is different and the first section of the costa much longer, quite as long as the other two together.

***Megaselia digressa* sp. nov.** (Fig. 25)

♀. Length 1.7 mm. Head and thorax brownish yellow, the pleurae paler below and the front slightly infuscated above, the antennae lighter yellow; abdomen black, the second tergite and the base of the fifth fulvous yellow; legs testaceous, the hind femora blackened apically; wings pale brownish, the veins light brown; halteres black. Front very slightly wider than high, its surface subshining, with unusually sparse and scattered minute black hairs; ocellar tubercle broad, the median impressed line weakly indicated; four postantennal bristles, the upper pair separated by fully half the width of the front, the lower ones by one-fourth the width of the front; antial bristles very close to the lowest lateral bristles and not much below the level of the lateral

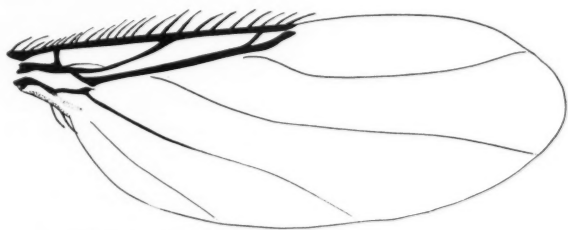


FIGURE 25. *Megaselia digressa* sp. nov., wing.

ones, a little nearer to the upper postantennals than to the ocellar bristles. Antennae small, arista strongly pubescent; palpi with stout, closely set bristles below on apical half; cheek with two strong bristles below and minute ones above extending in a line toward the antenna. Pubescence of mesonotum bristly behind; one pair of moderately strong dorsocentral bristles. Scutellum with acutely rounded apical margin; two long bristles and a lateral minute one at each side. Mesopleura entirely bare. Abdomen dull basally, more shining on the apical part, weakly bristly along the sides, but without conspicuous tufts at the sides of the second tergite; six fully sclerotized tergites, the second slightly elongated and the fifth strongly so; sixth narrow, but covering the upper side of the segment. Legs, including the front tarsi, slender; hind tibiae with a single row of bristles inside the seam, these very minute at base, becoming as long as half the width of the

tibia apically. Wings rather elongate, the costa extending to the middle (70 : 35), its bristles long, especially near the middle and rather widely spaced; first and second sections equal, the third more than one-third as long (13 : 13 : 5); fourth vein weakly curved; fifth and sixth sinuate; seventh nearly straight, weak basally.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, September 10, 1930 (C. F. Clagg). Four paratypes, two from the same place, Sept. 10 and Sept. 24; two from the Galog River (5,000 ft.), November 5.

***Megaselia extensifrons* sp. nov.**

♂. Length 1.7 mm. Brownish or yellow, with black abdomen; front, antennae and palpi brownish yellow, the antennae darker below and the front above; mesonotum with a distinct dark stripe occupying the median third, except in front; abdomen yellow at extreme base and with the tergites all margined with yellow behind; hypopygial lamella pale yellow; pleurae and legs very pale yellow, the hind femora dusky at tips; wings weakly brownish, the veins dark and the discal ones margined with dark streaks; halteres black. Front very wide, slightly more than twice as broad as high, with conspicuous scattered black hairs; surface quite shining, but not polished, the bristles strong. Four large, equal postantennal bristles, the upper pair occupying about one-fourth the width of the front, at the same level as the antials and lowest lateral bristles; antials twice as far from the median line as from the eye; preocellar bristles forming a line that is weakly curved downwards medially. Antennae slightly enlarged, with long, thinly pubescent arista. Palpi with unusually stout bristles below at tips. Cheek with two stout bristles, but the series that extends toward the antenna is feeble. Mesonotum broad, its pubescence moderately bristly behind; one pair of strong dorsocentral bristles. Scutellum wide and short, with evenly arcuate margin, with two very strong bristles, and a bristly hair at each lateral corner. Abdomen short and stout, the tergites short and of approximately equal length, with very small bristly hairs laterally and along the posterior margins of the tergites, stronger on the sixth tergite which bears also small discal bristles; sides of second tergite with a tuft of moderate bristles. Hypopygium rounded, pollinose, its lamella broadly compressed, with two conspicuous curved bristles at tip. Mesopleura entirely bare. Legs rather stout; the front tarsi slender; hind tibiae with a series of rather strong bristles inside the seam, longest on the posterior half where they are nearly as long as the width of the tibia. Costa extend-

ing barely beyond the middle of the wing (76 : 40), its bristles short and closely placed; first section decidedly longer than the second and three times as long as the third (18 : 15 : 5); the costa and third vein unusually stout, although not swollen or enlarged; fork of third vein very acute, the second vein longer than the third section of the costa; fourth vein evenly curved, recurved at extreme base; fifth feebly curved; sixth and seventh slightly sinuate, the seventh longer than usual.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, November 5, 1930 (C. F. Clagg).

This species is well marked among the Philippine species by the form and chaetotaxy of the front. It is in many characters very much like the palaearctic *M. glabrifrons* Wood. As noted under the description of *M. barbata* on a previous page, it resembles that species.

***Megaselia apposita* sp. nov.**

♀. Length 2.0 mm. Thorax yellowish brown; front lighter, the antennae and palpi pale yellow; abdomen black, more or less suffused with yellow on the median basal portions of the tergites; legs yellowish or pale brownish, the front pair much lighter; wings slightly yellowish, with deep brown venation; halteres black. Front shining slightly wider than long, with very few scattered hairs, its bristles long; ocellar tubercle and median impressed line well marked; four postantennal bristles, the lower pair much reduced in size, about half the size of the upper ones; antial bristles below the level of the upper postantennals, nearly twice as far from them as from the eye, considerably below and much farther from the eye than the lowest lateral bristles; four equidistant preocellar bristles, the median pair a little lower than the lateral ones and about midway between the median ocellus and the upper postantennal bristles. Cheek with two strong downwardly directed bristles and several slender widely separated ones extending in a series toward the antenna; antennae of moderate size, apparently more oval than usual, the arista with very short pubescence; palpi with short stout bristles apically. Mesonotum moderately broad, shining, with very long stout lateral bristles, its pubescence bristly behind; one pair of dorsocentral bristles; scutellum with one pair of very long bristles and a minute bristly hair at each side. Mesopleura entirely bare. Abdomen stout, with all the tergites fully sclerotized; second tergite with a tuft of noticeable bristles at each side; dorsal surface otherwise scarcely bristly or hairy except on the sixth segment and beyond; extreme tip quite heavily sclerotized above, with sparse

long bristly hairs. Tarsi slender; hind tibiae with a single series of very small bristles, obsolete apically, inside the seam. Wings elongate, ample; costa extending well beyond the middle of the wing (87 : 50), its bristles very short and densely placed; first section of costa as long as the second and third together, third about one-third the length of the second (23 : 17 : 6); fork of third vein not very acute, the second vein scarcely as long as the third section of the costa; fourth vein evenly curved; fifth and sixth feebly sinuate; seventh long, barely curved.

Type from Calian, Davao Province, Mindanao, Philippines, January 1, 1931 (C. F. Clagg). Another female from the Lalun Mts., July 5, 1930 is probably the same and perhaps also one from the Mainit River (5,000 ft.), Nov. 5, 1930, but in the last the front is noticeably hairy.

***Megaselia reversa* sp. nov.** (Fig. 26)

♀. Length 2.0 mm. Thorax and legs brownish yellow, the pleurae and legs lighter, especially the front pair; abdomen black, with the second and sixth tergites pale yellow; front brown, lighter below and blackened above; antennae and palpi clear yellow; hind femora broadly black at tip. Wings faintly yellowish, the veins light brown;

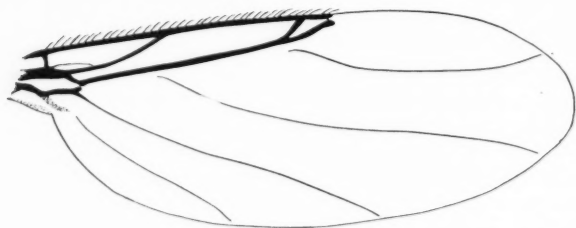


FIGURE 26. *Megaselia reversa* sp. nov., wing.

halteres black. Front quadrate, with prominent ocellar tubercle, the median impressed line faint, especially below; surface subshining, pollinose; bristles strong; four postantennal bristles, the lower pair much reduced in size, the upper ones separated by about one-third the width of the front; antial bristles between the level of the upper and lower postantennals, close to the lowest lateral bristles which are slightly above and lateral to the antials; preocellar bristles forming a nearly straight, transverse line, with the median pair but little below the level of the lateral bristles. Antennae small, the arista with very

short pubescence; palpi with moderately strong bristles; cheek with two very large bristles and a series of very closely placed short, thin ones extending upward toward the antenna. Mesonotum narrow, subshining, its pubescence coarse behind, especially between the dorso-central bristles. One pair of rather weak dorso-central bristles. Scutellum rather broad, with sharply rounded margin, bearing two long bristles and a pair of bristly hairs. Mesopleura entirely bare. Abdomen with dull surface; six completely sclerotized tergites, none of them noticeably lengthened; surface very sparsely beset with minute bristles, the lateral margins with stronger bristles, especially on the second tergite; sixth tergite very narrow. Legs slender, including the front tarsi; hind tibiae with a single series of bristles inside the seam, longest near the middle where they attain a length equal to three-fourths the width of the tibia; hair-seam straight, not angulate at the middle. Wings elongate; the costa, long, extending well beyond the middle of the wing (79 : 47), its bristles very short and closely placed; first section of costa less than three-fourths the length of the second which is nearly five times as long as the third (20 : 28 : 6); costa and third vein rather thin and unusually straight; cell at fork of third vein small, the second vein about the length of the third costal section; fourth vein evenly and gently curved; fifth and sixth feebly sinuate; seventh long, practically straight.

Male. Similar, with the front tarsi simple as in the female.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, September 8, 1930 (C. F. Clagg). Six paratypes: Galog River (5,000 ft.), Sept. 8, 12; two from Teo Ridge (5,500 ft.), Sept.; Mainit River (5,500 ft.), Oct. 30; Sibulan River (3,000 ft.), Nov. 11 (C. F. Clagg). There are also numerous specimens from the Sibulan, Mainit and Galog Rivers, Teo Ridge and Lalun Mountains, in which the excessive length of the second section of the costa is much reduced. These approach *M. meijerei* Brues from Java and Formosa in this respect and in the coloration of the abdomen, and may perhaps be a form of that species. However, I feel certain that *M. meijerei* and the Philippine species described above are distinct. The Formosan *M. chipensis* is also similar, but lacks the characteristic pale bands on the abdomen and the second costal section is shorter.

***Megaselia patellipes* sp. nov.**

♂. Length 1.4 mm. Thorax pale yellowish brown, the pleurae lighter and the legs much paler, with the hind femora black at apex; front black, brownish at the lower corners; abdomen black, the second

and sixth tergites deep yellow; hypopygial lamella pale yellow; wings hyaline, the venation very dark brown; halteres black; antennae and palpi orange yellow. Front quadrate, four postantennal bristles, the lower pair very small, the upper pair separated by about one-fourth the width of the front; antial bristles close to and slightly below the lowest lateral bristles, twice as far from the upper postantennals as from the eye; lowest lateral bristles barely above the level of the upper postantennals; median pair of preocellar bristles set considerably lower than the lateral ones, nearer to the postantennals than to the ocellar bristles. Antennae small, rounded, with long, strongly pubescent arista; palpi with about three strong apical bristles, the more basal ones much weaker. Cheek with two moderately long bristles below and some very small ones extending in a series toward the antenna. Mesonotum narrow, strongly convex anteriorly, its pubescence bristly behind; one pair of small dorsocentral macrochaetae. Scutellum subtriangular, with two long, rather approximate bristles and a minute lateral bristly hair at each side. Mesopleura entirely bare. Abdomen small, much narrowed beyond the second segment, its surface dull; none of the tergites noticeably lengthened; sides of second tergite with a few thin, rather long bristles; lateral margins of the other tergites with scattered bristly hairs which become longer and extend over the dorsal surface of tergites five and six. Hypopygium large, pyriform, bent vertically downwards, its median lamella long, clavate, with fine, short, curled, bristly hairs apically. Legs slender, the front tarsi curiously modified and flattened. The first joint is about half as long as the tibia, slightly widened from base to apex where it is nearly as broad as the tibia, its undersurface clothed with a brush of stiff oblique hairs; second joint reniform, considerably wider, with its apical edge oblique; third and fourth similar to, but smaller than the second; fifth minute, with the claws well developed. Hind tibia with the hair-seam not noticeably angulate; one series of very weak, fine bristles inside the seam, obsolete basally. Costa extending well beyond the middle of the wing (74 : 45), its bristles short, densely placed; first section as long as the second which is about three times as long as the third (27 : 28 : 10); fourth vein weakly curved, especially at the middle; fifth curved basally, gently recurved beyond middle; sixth gently sinuate; seventh long, nearly straight.

Type from the Lalun Mts. (5,500 ft.), Davao Province, Mindanao, Philippines, May 3, 1930 (C. F. Clagg).

This species is colored very similarly to *M. reversa* sp. nov., but the second section of the costa is not elongated as in that species, and the

postantennal bristles are much approximated. The male differs in the striking modification of the front tarsi which are simple in the male of *reversa*.

***Megaselia deflexa* sp. nov.**

♀. Length 2.6 mm. Thorax brownish yellow; abdomen black with yellowish stains basally on the first, second and fifth tergites, the sixth segment yellow; legs very pale yellowish, the hind femora blackened apically; front black, brownish on anterior border, antennae light brown; palpi pale yellow; wings weakly brownish, the veins light brown; halteres black. Front quadrate or very slightly wider than high, its surface subshining, slightly pollinose, rather densely hairy, the hairs bristly below. Four postantennal bristles, the lower pair considerably reduced in size, but more than half as long as the upper which are separated by about one-fourth the width of the front; antial bristles very close to the lowest laterals, just inside and below them; middle pair of preocellar bristles much lower than the lateral ones, slightly nearer to the upper proclinate bristles than to the anterior ocellus; ocellar tubercle strongly convex, the median impressed line distinct. Antennae small, with long, thinly pubescent arista; palpi with very strong bristles below and at tip; cheek with two large bristles and a close set series of slender ones extending upward to the antenna. Mesonotum rather broad, very strongly bristled at the sides behind; one pair of rather small dorsocentral bristles; scutellum rather long, its margin acutely rounded, with two long, strong bristles and a small lateral bristly hair at each side. Abdomen large, tapering, with six sclerotized tergites, although the sixth is very narrow; sides with a few weak bristles, except on the second tergite which bears a group of very much larger ones. Mesopleura entirely bare. Legs strong, the tarsi slender; hind tibiae with the posterior hair-seam angulate at the middle, thence deflected externally so that its apical half lies farther to the side and away from the single row of bristles that extends along the inside of the seam, the bristles stout, but short, especially at the base. Wings long, rather narrow; the costa extending to well beyond the middle (100 : 58), its bristles very short and closely placed; second section fully one-third longer than the first and four times as long as the third (19 : 26 : 6); fork of third vein acute; fourth vein curved more strongly near the base; following three veins all clearly sinuate.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, October 21, 1930 (C. F. Clagg).

This species is very similar to *M. reversa* sp. nov., but is much larger

and the hair-seam on the hind tibia is strongly deflected outwards beyond the middle.

***Megaselia inflaticornis* sp. nov.**

♂. Length 1.5 mm. Thorax brownish yellow; legs considerably paler; abdomen black, the first and basal half of second tergite yellow and a median stripe on the second to fifth tergites deep yellow; front black, yellowish brown below; antennae black with the base light brown; palpi pale yellow; halteres black; wings faintly infuscated, with very dark veins. Front quadrate, the ocellar tubercle strongly elevated, the median frontal line feebly impressed; bristles very large and stout; only two postantennal bristles, set close together, occupying only about one-seventh the width of the front; antial bristles set considerably below the postantennals, as far from the eyes as from one another; lowest lateral bristles not quite so close to the eye as usual, about one-third as far from the eye as from the antials; preocellar bristles set unusually high on the front, the median pair lower than the lateral ones and fully twice as far from the postantennals as from the median ocellus. Antennae oval, sharply rounded at tips, the third joint fully three-fourths as long as the width of the front; arista shorter than usual, sparsely pubescent; palpi narrow, with weakly developed bristles. Cheek with two unusually stout, downwardly directed bristles. Mesonotum coarsely pubescent, quite bristly behind, its lateral bristles very strong; one pair of moderately large dorsocentral bristles. Scutellum nearly semicircular, with two large bristles and a very small lateral bristle at each side. Mesopleura entirely bare. Legs rather stout, the first four joints of the front tarsus swollen, the basal joint nearly as thick as the tibia and four-sevenths as long; hind tibia with a single series of short, stout bristles inside the seam, much shorter at base and apex, near the middle three-fourths as long as the width of the tibia. Abdomen broad at base, evenly narrowed behind, its surface more or less pollinose; minutely bristly beyond the second tergite and quite strongly so on the sixth; second tergite much elongated, as long as the two following together, its lateral margins with a series of rather long bristles. Hypopygium globular, rather large; its lamella short, much compressed, with conspicuous, thin black hairs on the sides, the apical pair of bristles small. Costa extending distinctly beyond the middle of the wing (70 : 45), its bristles very short and closely placed; first section slightly shorter than the second; third one-third as long as the first (31 : 36 : 10); fork of third vein very acute; fourth vein weakly curved, faintly recurved at base; sixth and seventh feebly sinuate; seventh slightly curved.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 10, 1930 (C. F. Clagg).

This species is readily to be distinguished by the unusual chaetotaxy of the front, enlarged tarsi, swollen antennae and peculiar hypopygial lamella.

***Megaselia teoënsis* sp. nov.**

♀. Length 2.4 mm. Thorax pale brownish yellow, much lighter on the sides of the mesothorax behind the wings and on the pleurae; abdomen black; tergites two and six entirely and the posterior edges, except sides, of three and four light yellow; front light brown, darker medially, the ocellar tubercle black; antennae and palpi light yellow; legs pale brownish yellow, the hind femora tipped with black; wings very slightly yellowish, the veins brown; halteres black. Front about one-fifth broader than high, its surface rather shining, sparsely and finely hairy, with strong bristles; four postantennal bristles, the lower pair distinctly, but not greatly reduced in size and not much closer together than the upper pair which occupies one-fourth the width of the front; antials very close to the lowest lateral bristles at the lower corners of the front, below the level of the upper postantennals; four preocellar bristles forming a slightly downwardly curved line, the median pair as much approximated as the upper postantennals and much nearer to one another than to the lateral bristles, midway between the median ocellus and the postantennals. Antennae small, with long, closely pubescent arista; palpi narrow, with strong bristles apically; cheek with two strong downwardly curved bristles and a series of long very thin ones extending upwards along the eye. Pubescence of mesonotum fine anteriorly, slightly bristly behind, one pair of well developed dorsocentral bristles; scutellum sharply rounded behind, with two long bristles and a lateral minute bristly hair at each side. Mesopleura entirely bare above. Abdomen large, gradually tapering, the tergites of approximately equal length, all fully sclerotized, including the large sixth tergite; surface subshining, practically bare except for minute bristles along the sides and a more conspicuous tuft of larger bristles at the sides of the second tergite. Legs rather stout, the front tarsi noticeably stout and shortened; hind tibiae with straight hair-seam and a single row of bristles inside the seam, these bristles stout, but all distinctly shorter than the width of the tibia. Costa extending to slightly beyond the middle of the wing (100 : 53), its bristles minute and densely placed; first section barely shorter than the second and four times as long as the third (19 : 21 : 5); fork of third vein acute, forming a small, narrow cell;

fourth vein curved at base, practically straight beyond; fifth gently curved, sixth and seventh scarcely sinuate, the seventh long.

Type from Teo Ridge (6,500 ft.), Mt. Apo, Mindanao, Philippines, September, 1930 (C. F. Clagg).

This species is very similar to *M. reversa* sp. nov., but differs clearly in the characters brought forth in the preceding key.

***Megaselia perumbrata* sp. nov. (Fig. 27)**

♀. Length 1.8 mm. Black, the humeri and extreme lateral margin of mesonotum brownish yellow; antennae light brown; palpi yellow; pleurae piceous, brown in front; legs pale yellowish, the apical third of the hind femora and basal third of hind tibiae blackened. Wings subhyaline, with a slight brown tinge; veins brown. Front quadrate, its surface subshining, clothed with very sparse, minute hairs, the bristles stout; four postantennal bristles, the lower pair greatly reduced

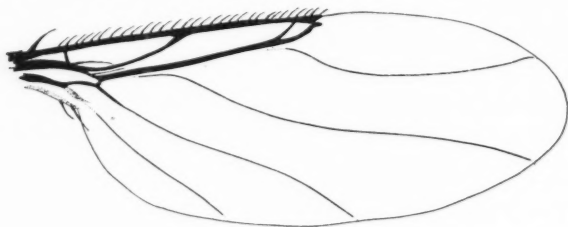


FIGURE 27. *Megaselia perumbrata* sp. nov., wing.

in size, upper pair separated by one-fourth the width of the front; antial bristles close to the lowest lateral bristles, below them and below the level of the upper postantennals; middle pair of preocellar bristles set much lower than the lateral ones, a little nearer to the median ocellus than to the postantennal bristles. Antennae small, with long, closely pubescent arista. Palpi narrow, with moderately large bristles. Cheek with two large bristles below and a series of close-set, long, thin, smaller bristles extending toward the antenna. Mesonotum moderately broad, subshining, with silken pubescence which becomes bristly at the extreme posterior part where there are several well developed bristles between the dorsocentrals which are smaller than usual. Scutellum with two long marginal bristles and a minute lateral bristly hair at each side. Mesopleura entirely bare. Abdomen dull black, gradually tapering; all of the tergites fully

sclerotized, none of them noticeably elongated; sides of abdomen bearing scattered short bristles, noticeably longer and stouter on the second tergite. Legs rather slender; front tarsi not noticeably thickened; hind tibiae with the hair-seam more sharply arcuate near the middle, but not actually angulate, with one series of moderately strong bristles inside the seam. Costa extending well beyond the middle of the wing, its bristles short and closely placed; first section a little shorter than the second which is four times as long as the third (17 : 20 : 5); fourth vein weakly curved, recurved at the base; fifth curved on the basal half; sixth faintly sinuate; seventh gently curved.

♂. Somewhat smaller, but entirely similar.

Type from the Galog River (5,000 ft.), Mt. Apo, Mindanao, Philippines, Sept. 8, 1930 (C. F. Clagg). Five paratypes, two from the same place, Sept. 8 and 28; one from the Mainit River, Sept. 9; one from Todaya Plateau (5,000 ft.), Sept. 2, and one from Lawa, Davao Province, May 4, 1930.

PHALACROTOPHORA Enderlein

There are three species of this genus in the present collection, both of which are undescribed. Schmitz has recently (Tijdschr. v. Entom., vol. 75, Suppl., p. 117, 1932) recognized three subgenera, all of which are represented in the Indomalayan Region. As there has been some doubt as to the proper subgeneric location of two species which I described from Java and Formosa, I have appended a key to the Indomalayan species.

Key to Malayan Species of *Phalacrotophora*

- Abdomen of female with six completely chitinized tergites. 1
 Abdomen with only three or four chitinized tergites in the female. 2
1. Mesopleura bare and antennae small in both sexes (Subg. *Omapanta*) 3
 Mesopleura clothed with bristly hairs above. *irregularis* sp. nov.
 2. Four well developed tergites in the female; mesopleura bare and antennae more or less enlarged in both sexes (Subg. *Omatessara*) 5
 Only three chitinized tergites in the female; mesopleura hairy above, usually also with a large bristle (Subg. *Phalacrotophora*) 6
 3. Front and mesonotum entirely black; halteres white (Java)
 jacobsoni Brues.
 - Front and mesonotum, at least anteriorly, reddish; halteres dark . . 4

4. Second section of costa less than half as long as the first; cell formed by the fork of the third vein of moderate size, the third section of the costa nearly half as long as the second. (Philippines)
scutata sp. nov.
 Second section of costa four-fifths as long as the first; cell formed by the fork of the third vein extremely small, the third section of the costa only about one-fourth as long as the second.
pallidicornis sp. nov.
5. Wings uniformly yellowish; first section of costa much less than twice as long as the second and third together (Formosa)
quadrimaculata Schmitz
 Wings apically with a brownish-black band between the costal margin and the fourth vein; first section of costa about twice as long as the second and third together (Sumatra)
vittipennis Schmitz
6. Front one-half higher than wide; second abdominal tergite without lateral black markings; abdomen with some orange or reddish color. 7
 Front narrower; second tergite with a black spot at each side; ground color of abdomen yellowish, without reddish or orange (Formosa) *punctifrons* Brues¹
7. First section of costa about as long as the second and third combined; upper proclinate bristles separated by less than one-third the width of the front (Sumatra) *oudemansi* Schmitz
 First section of costa decidedly longer than the second and third combined; upper proclinate bristles separated by one-third the width of the front (Sumatra) *auranticolor* Schmitz

Phalacrotophora (Omapanta) **scutata** sp. nov. (Fig. 28)

♀. Length 3.6-3.8 mm. Front reddish-brown; thorax yellowish brown; antennae reddish yellow; palpi and legs pale yellowish; abdomen black with some paler markings; wings hyaline, with strong, dark brown venation; halteres black, with a pale stalk. Front wider than usual, three-fifths as wide as high near the bottom and noticeably widened above so that the width at the ocelli is three-fourths the height. Two large postantennal bristles separated by one-fourth the width of the front and nearly as large as the antial bristles which are set at the level of the postantennals and somewhat closer to them than to the eye margin; the two bristles of the lower row frontal set

¹ This and the following two species are very similar and I am by no means satisfied that they are entitled to specific rank.

very close to the eye margin; four bristles of præocellar row with the median pair dividing the width of the front into equal thirds, the lateral pair close to the eye and one-third the width of the front below the lateral ones; postocellar bristles also large. Surface of front shining, but not polished, with a few very shallow setigerous punctures. Antennæ and palpi small, the latter with short bristles. Postocular cilia stout; cheek with one stout bristle and a series of about eight smaller ones extending toward the antennæ. Mesonotum shining, clothed with fine hairs; dorsocentral bristles very much stronger than a series of small bristles that lie between them; scutellum with four nearly equal bristles. Abdomen with six tergites, a seventh which forms a long flattened extension and a minute eighth at apex; first six tergites mainly with more or less extensive pale yellow markings as follows: anterior, especially the median part of the first tergite;

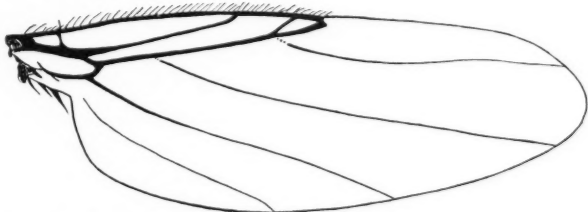


FIGURE 28. *Phalacrotophora scutata* sp. nov., wing.

anterior half or less, widened medially of the second, more or less distinct similar mark that does not extend to the sides on the third; second to fifth tergites with narrow marginal pale border behind, widened at the sides of second to fourth; sixth with a pale membranous triangle at each side behind, seventh and eighth pale brown. Second and sixth tergites lengthened; fifth very narrow at the middle; sixth polished, shield shaped, its base broad, rounded, the sides sharply narrowed behind, the posterior margin broadly produced triangularly at the middle; seventh tergite more than half as long as the remainder of the abdomen, twice as long as wide, with two grooves that separate a raised median part from reflexed lateral margins; eighth very small, triangular, with minute cerci projecting beyond its tip. Mesopleura bare. Front tibiae with a single series of short, but stout bristly hairs; middle and hind tibiae with two rows of bristles, one on each side of the dorsal seam, those on the hind tibia including 10-12 bristles in each series, these at the middle of the tibia about as long as its width;

wings very long and narrow, almost three times as long as broad; costa reaching to the middle, with very short cilia, first section of costa twice as long as the second and third together; the third half as long as the second; cell at fork of third vein moderately small, the fork acute; fourth vein nearly straight, faintly bisinuate; fifth, sixth and seventh strong, nearly straight.

Male. Length 2.1 mm. Similar, but with the lateral scutellar bristles decidedly weaker than the median ones; first four abdominal tergites black, with pale apical bands, except on the first; fifth tergite pale, except for the basal angles; sixth black with apical half pale; hypopygium small, rounded, shining black, its lamella long, rust red in color.

Type ♀ from Sibulan River (Angan Falls, 3,000 ft.), Nov. 11, 1930; another female from the three from the Galog River (6,000 ft.), September, October and May. One male from the Galog River (6,000 ft.), October 22, 1930.

This is a very distinct species on account of the peculiar configuration of the abdominal segments in the female.

***Phalacrotophora (Omapanta) pallidicornis* sp. nov.**

♀. Length 3.0 mm. Front pale reddish brown, the ocellar area blackened; antennae and palpi very pale, nearly white; mesonotum yellowish in front shading to piceous behind; scutellum black; pleurae testaceous, with a brown area near the root of the wing; abdominal tergites black, the third and fifth behind and the sixth at the sides and all of the seventh brownish yellow; legs entirely testaceous; wings faintly brownish, the veins dark and strong; halteres dark, with the tip of the knob whitish. Front three-fifths as broad below as high, slightly widened above, its surface smooth and polished; two small postantennal bristles separated by one-fourth the width of the front, set much lower than the very large antial bristles which are midway between them and the eye-margin; bristles of lower frontal row placed near the eye-margin well below the middle of the front; praecellar row with the middle pair much reduced in size, separated by less than one-third the width of the front and placed just below the ocellus, the lateral bristles of this row much larger, set near the eye, just above the upper third of the front so that this row forms a moderately curved line; bristles of ocellar row strong. Cheek with one moderately strong bristle and several more in a series extending to the antenna. Antennae and palpi small; the latter with weak bristles below toward the tip. Mesonotum shining, with black appressed hairs; two dorso-

central bristles with four smaller bristles between them; scutellum with four strong bristles. Pleuræ bare. Abdomen with all the tergites fully chitinized; second but little elongated; sixth strongly so, but of the usual form and with subopaque surface like the other tergites, as long as the three preceding segments and gradually narrowed behind; seventh half as long, tubular, with a row of bristly marginal hairs encircling it at the apical third; eighth highly polished with a number of very irregularly placed stiff bristly hairs scattered over its apical half. Second segment without lateral tuft of bristles, but at the hind angles with a group of short bristly hairs, repeated also on the third segment. Front tibiae with a row (double on the apical half) of short strong cilia and a group of about six short dorso-posterior spines at apex; middle tibiae with two rows of bristles; hind tibiae similarly armed, the bristles about as long as the width of the tibia. Costa reaching clearly beyond the middle of the wing (6 : 11); its cilia minute; second section four-fifths as long as the second; third very short as the third vein is forked very near the apex to form a very small, almost linear cell; light veins all practically straight the fourth clearly bisinuate; seventh long.

Type from the Sibulan River (7-8,000 ft.), September 21, 1930.

This species is readily distinguishable from *P. scutata* by the normally formed abdominal tergites and by the chaetotaxy of the front, as well as by the characters in wing venation as indicated in the key.

***Phalacrotophora irregularis* sp. nov.**

♀. Length 1.9 mm. Black; the antennæ piceous, reddish brown at the base of the third joint; front legs, middle trochanters and hind coxæ luteous; palpi pale yellow; wings slightly brownish, with dark brown veins. Front two-thirds as broad as high, shining, but not polished, the surface microscopically shagreened and sparsely hairy; ocellar tubercle faintly elevated, the median frontal line faintly indicated; four postantennal bristles, the lower pair nearly as long as the upper which occupy nearly one-third the width of the front; antial bristles near to the eye, a little above the level of the upper post-antennals, directed straight upwards; lowest lateral bristles next to the eye, far above the antials, at the lower third of the front; pre-ocellar row of four bristles forming a straight transverse line at the upper third of the front; cheek with two strong divergent bristles below and a close set series of delicate ones extending upward along the eye toward the antenna. Antennæ not enlarged; palpi rather small, with short, stout bristles. Mesonotum rather shining, with very short,

soft pubescence which becomes bristly near the scutellum. One pair of dorsocentral bristles; scutellum large, nearly semicircular, with two long marginal bristles. Mesopleura sparsely hairy above, with one large bristle at the upper posterior corner. Abdomen with six tergites, all fully sclerotized, but the sixth is very short and is exposed behind the fifth only as a narrow band; remainder of abdomen soft, pointed at apex; surface subshining; side margins with very short bristles, conspicuously longer on the second tergite. Legs stout; the front tarsi slender; hind tibiae with two rows of stout bristles, one on each side of the hairseam, those of the inner row as long as the width of the tibia and those of the outer row about half as long. Costa extending to the middle of the wing (40 : 78), its bristles short and very closely placed; first section slightly longer than the second and three times as long as the third (16 : 13 : 5); fork of third vein acute, the second and third veins not widely separated, both curving upwards to the costa; fourth vein nearly straight, weakly bent near base and faintly recurved at each end; fifth bent near base, very slightly and evenly divergent from the fourth; sixth and seventh nearly straight.

Type from the Mainit River (5,000 ft.), Mt. Apo, Mindanao, Philippines, November 5, 1930 (C. F. Clagg).

This species will not fit into any of the three subgenera recognized by Schmitz since the abdomen of the female is fully sclerotized and the mesopleura bristly. It thus combines characters of both *Phalacrotophora*, *s. str.* and *Omapanta*.

PLASTOPHORA Brues

Ann. Mus. Hist. Nat. Hongrois, vol. 3, p. 551 (1905).

Schmitz. Monog. Phoriden, p. 152 (1929).

There is a single species in the collection that appears to belong to this genus which is by no means very distinct from *Megaselia*. On this account, it is included in the key to species of that genus.

***Plastophora dubitata* sp. nov.**

♀. Black or piceous, the mesonotum dark brown and the pleurae lighter brown; palpi brownish yellow; front legs testaceous, the middle and hind ones fuscous with the tarsi somewhat paler; wings faintly tinged with brown, the veins fuscous; halteres pale yellowish. Front very slightly wider than high, subshining with very sparse fine pubescence; bristles very long, slender; four postantennal bristles, the lower pair much smaller than, but not much nearer to one another than the upper ones which occupy nearly one-third the width of the front;

antial bristles midway between the median line and the eye margin, set at the level of the upper postantennals and much below the lowest lateral bristles; preocellar row of four equidistant bristles forming a line that is bowed downwards medially; ocellar tubercle very prominent, the median frontal groove clearly defined. Antennae small, with a slender, nearly bare arista. Palpi with moderate bristles at tips and very small ones on the lower edge. Proboscis broad, narrowed to a blunt tip reaching to the tips of the palpi and heavily chitinized when seen from below. Mesonotum strongly convex, with one pair of long slender dorsocentral bristles; two somewhat longer bristles on the broad, short scutellum which is twice as wide as long. Mesopleura above with a patch of sparse small bristles and two strong backwardly directed bristles arising at the middle and lower corner of the patch. Abdomen with dull surface, the tergites of about equal length, not much narrowed until the sixth which is sharply narrowed to a rounded tip. This segment bears a fringe of six or eight bristly hairs near the apex, about as long as the segment and directed posteriorly; beyond this there projects a slightly asymmetrical process, shorter than the sixth tergite which is inserted slightly to the left of the median line and is directed toward the right; this is shining black and bears scattered bristly hairs. Legs moderately slender; hind tibia with the posterior hair-seam sharply angled at the middle, its base arising nearer the external side of the tibia than usual; one series of setulae inside the seam; these short and weak, especially on the basal half of the tibia. Wings rather narrow, but not especially long; costa extending to a little beyond the middle, its cilia short and closely placed; first section of costa equal in length to the second; second vein completely absent; mediastinal vein showing as a faint trace by transmitted light; fourth vein bent at base, straight beyond, fifth vein faintly curved; sixth and seventh feebly sinuate.

Type from Lalun Mts. (6,500 ft.), Davao Province, Mt. Apo, Mindanao, Philippines, December 31, 1930 (C. F. Clagg).

I am somewhat in doubt as to the sex of the type, but believe it is probably a female as the projecting appendage at the tip of the abdomen does not appear to be a hypopygial lamella and no hypopygium is visible; also the chitinized proboscis is apparently always characteristic of females in this family. However, I cannot be positive on this point. The generic position may also be incorrect. The chaetotoxy and other structural characters, aside from the simple third vein would place it perfectly well in *Megaselia*, but it is certainly very similar to the type species of *Plastophora* from New Guinea, and not

close to any of the described species of *Megaselia* in which the second vein is weakly developed or absent.

JOHOWIA Silva

1916 Bol. Mus. Nac. Chile, vol. 9, p. 19.

1923 Borgmeier, Arch. Mus. Nac. Rio de Janeiro, vol. 24, p. 341.

1925 Borgmeier, *ibid.*, vol. 25, p. 182.

1929 Schmitz, Revision der Phoriden, p. 86, 142.

There is a single specimen from the Philippines which I have referred at least tentatively to this genus. *Johowia* is based on two South American species which I do not know in nature and as there are considerable differences in frontal chaetotaxy which are not readily reconciled with the descriptions of the neotropical forms, it is quite possible that the Philippine type may be generically distinct.

***Johowia setosissima* sp. nov.**

♀. Length 1.6 mm. Black with a distinct piceous or brownish tinge; legs piceous, the front pair slightly lighter beyond the coxae; wings uniformly brownish, with very dark, strong venation. Front as wide as high at the middle; very deeply excavated on each side by the antennal cavities so that the anterior lobe of the front between the antennal cavities is two-fifths as high as the front above the cavities; this lobe narrowed below, its tip rounded (about like the tip of the antenna) and furnished along each side with four strong bristles which curve outwards over the antennae and very slightly downward, in addition with one pair of smaller proclinate postantennal bristles which are scarcely divergent and separated by less than one-third the width of the front; antial bristles very slightly above the postantennals, curved toward the median line and somewhat nearer to the eye than to the postantennal bristle; lowest lateral bristle well above the antial and very close to the eye; praecellar row nearly straight, the median pair nearer to one another than to the lateral bristle; all bristles strong and well developed. Front with very distinct median line, dull, clothed with scattered small hairs. Antennae very small, rounded, with a nearly bare arista as long as the headheight; palpi short, with strong apical bristles as long as the palpus; cheeks each with four or five long upcurved bristles along the edge close to the eye margin. Mesonotum short, no longer than wide, with a single pair of long dorsocentral bristles; two scutellar bristles, the scutellum much wider than long; mesopleura with a group of stiff hairs above, but without any long bristle. Abdomen with three tergites, the second not notice-

ably lengthened; remainder of abdomen membranous although the two apical segments are more distinctly chitinized than the intermediate portion. Legs slender, the hind femora less than one-third as broad as long; spurs of four posterior tibiae long and slender; hind tibiae with a dorsal hair-seam and a very weak line of posterodorsal setulae. Costa extending to distinctly beyond the middle of the wing, its cilia short and closely placed; first section of costa as long as the second and third together; third half as long as the second; fork of third vein very acute. Fourth vein evenly curved, not recurved at tip; fifth curved only near middle; sixth curved before the middle and faintly recurved near tip; seventh long, very slightly curved.

Type from the Galog River (5,000 ft.), September 26; Mount Apo, Mindanao, Philippines (C. F. Clagg).

This species is practically a *Megaselia* aside from the peculiar median lobe of the front which is much extended downwards and provided with the four extra pairs of bristles as described above. From their position these could hardly be regarded as supernumerary post-antennal bristles and I am not all sure that this bristling is really similar to that in *Johowia*. However, the species should be easily recognizable.

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